

## Disclaimer

The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

If you are using a web page screen reader and are unable to access this document, please contact the Sentinel Operations Center for assistance at [info@sentinelssystem.org](mailto:info@sentinelssystem.org).

## Overview for Requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

**Request IDs:** cder\_mpl2p\_wp061, cder\_mpl1p\_wp115

**Request Description:** This analysis (executed via requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115) aimed to assess the risk of incident renal cell carcinoma (RCC) among adult initiators of canagliflozin (CANA) with evidence of type 2 diabetes mellitus, had they been randomized to initiate CANA or a comparator drug sitagliptin (SITA) and to achieve at least 180 days of exposure in the first year of follow-up (treatment strategy of interest). We used a clone-censor-weighting design to conduct this analysis. Treatment propensity score-based weighting was applied to emulate randomization to the initiator groups, and inverse-probability-of-censoring weighting (IPCW) was used to account for potential selection bias due to artificial censoring associated with treatment strategy non-adherence. We estimated the RCC hazard ratio we would have observed had all CANA initiators been randomized to CANA versus SITA and accrued at least 180 days of exposure in the first year of follow-up in the Sentinel Distributed Database (SDD). A follow-up query (cderr\_mpl1p\_wp115) assessed the distribution of post-treatment IPCW and inverse probability of treatment (IPT)/IPCW-weighted covariates among individuals with at least 360 days of follow-up, and examined outcome models adjusted using inverse-probability-of-treatment weighting (IPTW) and IPCW individually rather than using the combined weight.

**Sentinel Routine Querying Module:** Cohort Identification and Descriptive Analysis (CIDA) module, version 14.2.0, with Propensity Score Analysis module and custom programming.

**Data Source:** We distributed the initial query to six Sentinel Data Partners (DP) on November 6, 2025. These six Data Partners are a subset of the SDD. Data from Medicare patients having both fee-for-service medical coverage and Part D drug coverage are included. The study period included data from March 1, 2013 (CANA approval) through the most recent available data at each DP (maximum data availability: March 31, 2025). Please see Appendix A for a list of dates of available data for each Data Partner.

**Study Design:** We identified individuals with type 2 diabetes mellitus, age 18 years and older, who initiated CANA or SITA after a 365-day washout period and who met all eligibility criteria (see “Cohort Eligibility”) during the 365-day baseline period. We evaluated the occurrence of RCC in all available data after initiation of study drug until the end of follow-up (see “Follow-up Time”). We implemented a Type 2 analysis using the Propensity Score Analysis (PSA) module in the Query Request Package (QRP), supplemented by custom programming.

We used a clone-censor-weighting approach to identify and analyze the two primary treatment strategies of interest:  $\geq 180$  days of cumulative exposure to CANA or  $\geq 180$  days of cumulative exposure to SITA within one year of initiation. Specifically, this initial period of follow-up was divided into four 90-day intervals, during which we assessed cumulative exposure (see “Exposures and Comparators of Interest” for further details), allowing for gaps between dispensings. We created two clones for each CANA and SITA initiator, one each assigned to a  $< 180$  and  $\geq 180$  day treatment strategy (CANA  $< 180$ , CANA  $\geq 180$ , SITA  $< 180$ , SITA  $\geq 180$ ); clones were artificially censored at the end of an interval if they deviated from their assigned treatment strategy (i.e., achieved  $\geq 180$  days of exposure for  $< 180$ -day clones; exhausted days remaining to accumulate  $\geq 180$  days of exposure by day 360 for  $\geq 180$ -day clones). Remaining person-time for each artificially censored clone was excluded from the analysis after censoring.

### Overview for Requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

To emulate randomization of CANA initiators to SITA vs. CANA, we estimated treatment propensity scores (tPS) as a function of demographic and clinical characteristics measured within 365 days prior to the index date. Stabilized tPS-based weights were used to estimate the "average treatment effect in the treated (ATT)" (CANA initiators), with ATT weights truncated at the 1st and 99th percentile of the weight distribution. We used inverse probability of censoring weights (IPCW) to account for potential selection bias due to artificial censoring, in the event that RCC and adherence share common predictors. We modeled the probability of not being censored (cPS) in each interval for each treatment strategy using logistic regression, conditional on time interval, baseline characteristics, and time-varying post-index covariates assessed in each interval (see "Patient Characteristics" for further detail). The IPCW in each interval was the cumulative product of  $1/cPS$ .

The time-varying IPCW was multiplied by the ATT weight, and the combined weight was truncated at the 1st and 99th percentile of the weight distribution. ATT/IPC-weighted hazard ratios (HRs) were estimated for all treatment strategies compared to the SITA  $\geq 180$  treatment strategy. Bootstrapping was used to estimate robust 95% confidence intervals (CIs) for HRs, and results from DPs were meta-analyzed (see "Analysis").

**Exposures and Comparators of Interest:** An individual's first eligible initiation of CANA or SITA was defined as their index date. For the CANA cohort, we defined incident exposure based on no evidence of any sodium-glucose cotransporter-2 inhibitor (SGLT-2i) in the previous 365 days. For the SITA cohort, we defined incident exposure based on no evidence of any dipeptidyl peptidase-4 inhibitor (DPP-4i) in the previous 365 days.

The primary treatment strategy of interest was defined as achieving at least 180 days of cumulative exposure to CANA in the year following initiation; the primary comparator strategy was defined as achieving at least 180 days of cumulative exposure to SITA in the year following initiation.

Exposures and cumulative exposure duration were assessed using outpatient dispensings using National Drug Codes (NDCs). Achievement of 180 days of exposure was based on native days' supply associated with each dispensing, with stockpiling applied within each exposure group to adjust overlapping prescriptions. No bridging or episode extension was implemented. A 360-day "assessment window" to achieve 180 days of exposure was selected based on prior feasibility work in cder\_mpl1p\_wp107.

A secondary exposure strategy of interest was achieving at least 180 days of cumulative exposure to any SGLT-2i product.

Please refer to Appendix B for non-proprietary and proprietary names of medical products used to define exposures. Any NDCs used to define exposure were also searched for in the procedure table and used for washouts and drug-related exclusion criteria.

## Overview for Requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

**Outcomes of Interest:** We defined the primary event of interest, referred to as narrow RCC, based on previously developed algorithms<sup>1,2</sup>, for identifying early- or late-stage RCC (analyzed as a composite outcome).

Individuals with early RCC<sup>1</sup> were required to meet all of the following criteria:

- ≥2 non-metastatic RCC International Classification of Diseases, Ninth Revision (ICD-9), Clinical Modification (ICD-9-CM) or Tenth Revision (ICD-10), Clinical Modification (ICD-10-CM) diagnosis codes within 60 days, where the event date was considered the earliest diagnosis code date.
- ≥1 ICD-10-CM diagnosis or Current Procedural Terminology, Fourth Edition (CPT-4) procedure code for diagnostic workup (e.g., imaging, blood work, pathology) within [-180, -1] days before the event date
- ≥1 CPT-4, Healthcare Common Procedure Coding System (HCPCS), or ICD-9 or -10 Procedure Coding System (ICD-9-PCS, ICD-10-PCS) procedure code for surgery or ablation<sup>1,3</sup> within [1, 120] days after the event date

Individuals with late RCC<sup>2</sup> were required to meet all of the following criteria:

- ≥1 RCC ICD-9 or 10-CM diagnosis code AND ≥1 metastatic RCC (mRCC) ICD-9 or 10-CM diagnosis code within [-30, +60] days of the RCC code. The event date was considered the earliest RCC or mRCC diagnosis code date.
- ≥1 ICD-10-CM diagnosis code or CPT-4 procedure code for diagnostic workup or ≥1 ICD-9 or 10-CM diagnosis code for metastatic disease symptoms within [-180, +30] days from the event date
- ≥1 of the following [1, 120] days after the event date:
  - ≥1 HCPCS, CPT or ICD-9 or 10-PCS procedure code for systemic chemotherapy, radiation, or surgery
  - ≥1 NDC, CPT-4 or HCPCS code for RCC chemotherapy<sup>4</sup>
  - Mortality.

Please see Appendix C for the specific procedure and diagnosis codes used to define outcomes, and Appendix D for names of medical products used to define RCC chemotherapy in this request.

**Cohort Eligibility Criteria:** We required members to be enrolled in health plans with medical and drug coverage for at least 365 days prior to their index date, during which gaps in coverage of up to 45 days were allowed.

Eligible individuals had to additionally meet all the following criteria in the 365-day baseline period prior to the index date (unless otherwise noted):

- Type 2 diabetes mellitus, defined as:
  - ≥1 diagnosis code for type 2 diabetes mellitus
  - No diagnosis codes for type 1 diabetes mellitus
  - ≥1 NDC or procedure code for an oral antidiabetic drug
- No evidence of stage III-V chronic kidney disease (CKD) or dialysis
- No evidence of prior kidney cancer or nephrectomy in all available history, defined as:
  - ≥2 kidney neoplasm diagnosis codes or
  - ≥1 code for personal history of kidney cancer or
  - ≥1 code for acquired absence of kidney
- No evidence of the comparator drug class (SGLT-2i or DPP-4i)
- No evidence of SGLT-2i/DPP-4i combination products
- No evidence of prior glucagon-like peptide-1 receptor agonist (GLP-1RA, including gastric inhibitory peptide [GIP]/GLP-1RA combination products)

See Appendix E for a list of non-proprietary and proprietary names of medical products and Appendix F for the diagnosis and procedure codes used to define inclusion and exclusion criteria for this request.



## Overview for Requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

**Follow-up Time:** Follow-up began on the day after the index dispensing and continued until the first occurrence of any of the following: 1) disenrollment; 2) death; 3) the end of data availability; 4) the end of the query period; 5) occurrence of RCC; 6) initiation of the comparator drug class or an SGLT-2i/DPP-4i combination product; or 7) evidence of stage III-V CKD or dialysis.

The first year of follow-up was additionally discretized into four 90-day intervals, during which we conducted a time-varying assessment of cumulative exposure duration (based on native days' supply, see "Exposures and Comparators of Interest") and select time-varying covariates thought to be associated with adherence and RCC risk (see "Patient Characteristics"). Adherence to the treatment strategies of interest was assessed at the end of each interval. See "Study Design" for further details.

See Appendices G and H for codes used for censoring.

**Patients Characteristics:** We assessed the following characteristics during the 365 days before the index date (unless otherwise noted):

- demographics (age at index, year at index, sex, race, ethnicity),
- Combined Comorbidity score<sup>5</sup>, claims-based frailty score<sup>6</sup>, adapted Diabetes Complication Severity Index score (aDCSI)<sup>7</sup>,
- health service utilization (number of emergency department [ED] visits, number of ambulatory visits [AV], number of inpatient [IP] encounters),
- clinical characteristics (retinopathy, nephropathy, neuropathy, hypoglycemia, hyperglycemia, hypertension, dyslipidemia, coronary artery disease [CAD], cerebrovascular disease [CVD], peripheral vascular disease [PVD], congestive heart failure [CHF], chronic obstructive pulmonary disease [COPD], depression, obesity, malignancy, hepatitis C, kidney stones, sickle cell disease),
- smoking/nicotine use, alcohol use,
- diabetic medication use (metformin, sulfonylureas, thiazolidinediones [TZDs], alpha-glucosidase inhibitors, meglitinides, insulins),
- number and type of cardiovascular medications (including angiotensin converting enzyme inhibitors [ACEis], angiotensin receptor blocker [ARBs], beta blockers, calcium channel blockers [CCBs], statins, diuretics, aspirin/acetaminophen/other nonsteroidal anti-inflammatory drugs [NSAIDs]),
- influenza vaccine, and
- pneumococcal vaccine (in all available history).

The following time-varying characteristics were evaluated post-index in time intervals [0, 89], [90, 179], and [180, 269] days post-index and included along with baseline covariates in the IPCW model:

- retinopathy,
- nephropathy,
- neuropathy,
- any IP principal or ED claims or lab values for hyperglycemia (fasting glucose  $\geq 125$  mg/dl, non-fasted glucose  $\geq 180$  mg/dl),
- new insulin use (defined as first use after a 365-day washout),
- new GLP1-RA use, including GIP/GLP-1RAs,
- flu vaccine,
- pneumococcal vaccine,
- any frailty indicators (including anti-dementia drugs, loop diuretics, digoxin, and wheelchair or home hospital bed claims),
- any preventive healthcare use (including cancer screening [colon, breast, prostate, cervical], bone mineral density screening, eye exams, anti-glaucoma drug use, and lipid panel tests),
- any hemoglobin A1c (HbA1c) test,
- number of AV encounters,
- any ED visits,
- any IP visits, and
- an increase in the number of cardiovascular medications over the prior interval.

### Overview for Requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

The following characteristics assessed on days [1, 360] post-index were evaluated descriptively among individuals remaining in the database on day 360 post-index (individuals lost-to-follow-up or experiencing events before that time are not included):

- retinopathy,
- nephropathy,
- neuropathy,
- number of IP principal or ED claims for hypoglycemia (0, 1, 2+),
- number of IP principal or ED claims for hyperglycemia (0, 1, 2+),
- hypertension,
- dyslipidemia,
- CAD,
- CVD,
- PVD,
- CHF,
- obesity,
- any HbA1c test,
- new GLP1-RA use, including GIP/GLP-1RAs,
- any frailty indicators,
- any preventive healthcare use,
- number of AV encounters (<5, 5-10, 11+),
- number of ED visits (0, 1, 2+),
- number of IP visits (0, 1, 2+).

**Secondary Analyses:** Three secondary analyses were conducted using the secondary treatment strategy of interest ( $\geq 180$  days of cumulative exposure to SGLT-2is in the first year after initiation) and secondary outcome definition (broad RCC), or both. The secondary outcome definition was based on 2 or more RCC diagnosis codes (any stage) within 60 days<sup>8</sup>, with the event date being the earliest RCC diagnosis code.

**Sensitivity Analyses:** Two sensitivity analyses were conducted for the primary analysis additionally censoring on 1) diagnosis with a non-RCC malignancy (excluding non-melanoma skin cancer) and 2) initiation of a GLP-1RA or GIP/GLP-1RA (any use after index) or new insulin use (first use in 365 days).

**Subgroup Analyses:** Subgroups of interest included: sex, age  $\geq 65$  years, and obesity. Propensity scores were re-estimated within each subgroup.

## Overview for Requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

**Propensity Score Estimation:** We included the following baseline characteristics in the treatment propensity score: age (including squared and cubic polynomials), sex, calendar year (grouping years  $\geq 2019$ ), retinopathy, nephropathy, neuropathy,  $\geq 1$  inpatient principal or emergency department claim or lab value for hyperglycemia, hypertension, dyslipidemia, CAD, CVD, PVD, CHF, COPD, depression, obesity, cancer, kidney stones, smoking, alcohol use, metformin, sulfonylureas, TZDs, insulin, cardiovascular medications (by class), flu vaccination, ever prior pneumococcal vaccination, number of ED visits, number of AV visits, number of IP encounters, comorbidity index categories, aDCSI score categories, and frailty.

The Propensity Score Analysis (PSA) module in the QRP was used to calculate the baseline treatment propensity scores and produce weighted cohorts within each Data Partner in order to estimate the average treatment effect in the CANA initiators (or SGLT-2i initiators, in secondary analyses). Truncation was implemented for weights above the 99th and below the 1st percentile of the weight distribution. See Appendix I for a list of non-proprietary and proprietary names of medical products and Appendix J for the diagnosis and procedure codes used to define covariates for this request.

The additional time-varying post-index covariates listed under “Patient Characteristics” were assessed in each 90-day follow-up interval and used to estimate the censoring propensity score (cPS) for artificial censoring using pooled logistic regression with custom programming. Separate cPS models were estimated for each treatment strategy of interest. The IPCW in each interval was the cumulative product of  $1/\text{cPS}$ . The time-varying IPCW was multiplied by the stabilized ATT weight; the combined weight was truncated at the 1st and 99th percentile.

**Analysis:** Each initiator had all dispensing, outcome, and covariate data duplicated and was assigned to two mutually-exclusive treatment strategies in the “cloned” data:  $< 180$  days of cumulative exposure and  $\geq 180$  days cumulative exposure within the first year of initiation. Programming was used to create a “long format” dataset, with multiple records per clone covering days 0-89, 90-179, 180-269, 270-359, and  $\geq 360$  post-initiation. Adherence to the assigned treatment strategy was assessed on days 179, 269, and 359 post-index. All follow-up time prior to artificial censoring, RCC, or regular censoring was included in analyses, with individuals able to contribute to both treatment strategies prior to day 360.

Covariate balance before and after ATT weighting was assessed for the CANA and SITA cohorts using standardized mean differences (SMDs), with absolute SMDs  $> 0.1$  used to define imbalance. As part of the follow-up query, covariate balance before and after IPCW and ATT/IPCW was included as an *ad hoc* assessment among individuals who survived event-free until at least day 360.

We report the crude and ATT/IPC-weighted number of clones, event counts, person-time at risk, and incidence rates. We used Cox proportional hazards regression models to estimate crude and ATT/IPC-weighted hazard ratios for RCC, with the  $\geq 180$  days of SITA exposure treatment strategy serving as the reference group for all other treatment strategies. Bootstrapping with 500 replicates was performed at each Data Partner to generate a robust 95% confidence interval (CI) for the hazard ratio. As a sensitivity analysis, 95% CIs were also estimated based on the robust standard error sandwich estimator.

Results from each Data Partner were combined using meta-analysis to produce summary hazard ratios and 95% CIs with both random and fixed effects models.

Kaplan-Meier curves with 95% CIs were also generated for crude and ATT/IPC-weighted data; no bootstrapping or robust standard error estimation was implemented for Kaplan-Meier estimates.

Please see Appendices K-K.3 for the specifications of parameters used in this request and Appendix L for the design diagram.

## Overview for Requests cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

**Limitations:** Algorithms used to define exposures, outcomes, covariates and inclusion criteria are imperfect; thus, it is possible that there may be misclassification. Therefore, data should be interpreted with this limitation in mind. Interpretation of our findings as a hypothetical target trial depends on meeting standard causal identifiability criteria. In particular, conditional exchangeability is unlikely to be met when using administrative data due to unmeasured or mismeasured covariates. Model misspecification is also possible for both propensity score and outcome models.

The study design did not use IPCW to account for censoring due to other potentially informative end-of-follow-up criteria, including CKD and dialysis, nor did it account for competing risks. Limited duration of follow-up prevented evaluation of longer duration treatment strategies and more complex/dynamic treatment strategies. Lastly, diagnostics for IPCW performance are the subject of ongoing research.<sup>9,10</sup> Individuals lost to follow-up or experiencing events before day 360 were not included in assessments of post-index covariate balance, nor were balance assessments conducted in a time-varying manner.

**Notes:** Please contact the Sentinel Operations Center (info@sentinel-system.org) for questions and to provide comments/suggestions for future enhancements to this document. For more information on the specific routine querying module utilized in this query, please refer to the documentation on Type 2 analyses using the Propensity Score Analysis module within our documentation library accessible at <https://dev.sentinel-system.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse>

<sup>1</sup> Chun, D.S. (2021). Methodological Approaches for Conducting Claims-Based Studies in Patients Diagnosed with Metastatic Renal Cell Carcinoma [Doctoral dissertation, University of North Carolina at Chapel Hill]. Carolina Digital Repository. <https://doi.org/10.17615/m11c-yv05>.

<sup>2</sup> Miller DC, Saigal CS, Warren JL, Leventhal M, Deapen D, Banerjee M, Lai J, Hanley J, Litwin MS. External validation of a claims-based algorithm for classifying kidney-cancer surgeries. BMC Health Serv Res. 2009 Jun 6;9:92. doi: 10.1186/1472-6963-9-92.

<sup>3</sup> Patel V, Lindquister WS, Dhangana R, Medsinge A. Percutaneous ablation of renal tumors versus surgical ablation and partial nephrectomy: Medicare trends and reimbursement cost comparison from 2010 to 2018. Abdom Radiol (NY). 2022 Feb;47(2):885-890. doi: 10.1007/s00261-021-03390-4.

<sup>4</sup> Including axitinib, pembrolizumab, cabozantinib, nivolumab, lenvatinib, ipilimumab, pazopanib, sunitinib, aldesleukin, temsirolimus, bevacizumab, everolimus, sorafenib, interferon alpha, and avelumab. Motzer RJ, Jonasch E, Agarwal N, et al. NCCN Guidelines® Insights: Kidney Cancer, Version 2.2024: Systemic Therapy Options for Patients With Relapsed or Stage IV Disease. J Natl Compr Canc Netw. 2024 Feb;22(1):4-16. doi: 10.6004/jnccn.2024.0008.

<sup>5</sup> Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

<sup>6</sup> Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring Frailty in Medicare Data: Development and Validation of a Claims-Based Frailty Index. J Gerontol Ser A. 2018;73(7):980-987. doi:10.1093/gerona/glx229

<sup>7</sup> Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>8</sup> Setoguchi S, Solomon DH, Glynn RJ, Cook EF, Levin R, Schneeweiss S. Agreement of diagnosis and its date for hematologic malignancies and solid tumors between Medicare claims and cancer registry data. Cancer Causes Control. 2007 Jun;18(5):561-9. doi: 10.1007/s10552-007-0131-1.

<sup>9</sup> Gaber CE, Ghazarian AA, Strassle PD, Ribeiro TB, Salas M, Maringe C, Garcia-Albeniz X, Wyss R, Du W, Lund JL. De-Mystifying the Clone-Censor-Weight Method for Causal Research Using Observational Data: A Primer for Cancer Researchers. Cancer Med. 2024 Dec;13(23):e70461. doi: 10.1002/cam4.70461.

<sup>10</sup> Jackson JW. Diagnosing Covariate Balance Across Levels of Right-Censoring Before and After Application of Inverse-Probability-of-Censoring Weights. Am J Epidemiol. 2019 Dec 31;188(12):2213-2221. doi: 10.1093/aje/kwz136.

## Table of Contents

|                               |                                                                                                                                                                                                                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Glossary (CIDA)</u></b> | List of Terms to Define the Cohort Identification and Descriptive Analysis (CIDA) Found in this Report                                                                                                                                                                                                     |
| <b><u>Glossary (PSA)</u></b>  | List of Terms to Define the Propensity Score Analysis (PSA) Found in this Report                                                                                                                                                                                                                           |
| <b><u>Table 1a</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                                                                   |
| <b><u>Table 1b</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)                                          |
| <b><u>Table 1c</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female                                                                                                      |
| <b><u>Table 1d</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female                             |
| <b><u>Table 1e</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male                                                                                                        |
| <b><u>Table 1f</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male                               |
| <b><u>Table 1g</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years                                                                                                   |
| <b><u>Table 1h</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years                          |
| <b><u>Table 1i</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years                                                                                                   |
| <b><u>Table 1j</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years                          |
| <b><u>Table 1k</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity                                                                                                       |
| <b><u>Table 1l</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity                              |
| <b><u>Table 1m</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity                                                                                                          |
| <b><u>Table 1n</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity                                 |
| <b><u>Table 1o</u></b>        | Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                          |
| <b><u>Table 1p</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%) |
| <b><u>Table 1q</u></b>        | Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                               |
| <b><u>Table 1r</u></b>        | Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                           |

## Table of Contents

|                         |                                                                                                                                                                                                                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Table 1s</u></b>  | Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                            |
| <b><u>Table 1t</u></b>  | Inverse-Probability-of-Treatment and -Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                             |
| <b><u>Table 1u</u></b>  | Aggregated Unweighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                   |
| <b><u>Table 1v</u></b>  | Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                               |
| <b><u>Table 2a</u></b>  | Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type                                                                                        |
| <b><u>Table 2b</u></b>  | Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Sex                                                                                |
| <b><u>Table 2c</u></b>  | Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Age                                                                                |
| <b><u>Table 2d</u></b>  | Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Obesity                                                                            |
| <b><u>Table 3</u></b>   | Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Broad Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type                                                                                         |
| <b><u>Table 4</u></b>   | Effect Estimates for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type                                               |
| <b><u>Table 5</u></b>   | Effect Estimates for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin: Broad Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type                                                |
| <b><u>Table 6</u></b>   | Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC), Censoring at Non-Renal Cell Carcinoma (RCC) Malignancy in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type                                |
| <b><u>Table 7</u></b>   | Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC), Censoring at Glucagon-Like Peptide-1 Receptor Agonist (GLP1-RA) or Insulin Initiation in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type |
| <b><u>Table 8</u></b>   | Effect Estimates for Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type                                             |
| <b><u>Table 9</u></b>   | Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                                                                                                                   |
| <b><u>Figure 1a</u></b> | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                              |
| <b><u>Figure 1b</u></b> | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female                                 |
| <b><u>Figure 1c</u></b> | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male                                   |



## Table of Contents

|                         |                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Figure 1d</u></b> | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years                                                                             |
| <b><u>Figure 1e</u></b> | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years                                                                             |
| <b><u>Figure 1f</u></b> | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity                                                                                 |
| <b><u>Figure 1g</u></b> | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity                                                                                    |
| <b><u>Figure 2</u></b>  | Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                    |
| <b><u>Figure 3a</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                          |
| <b><u>Figure 3b</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                 |
| <b><u>Figure 3c</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Female                             |
| <b><u>Figure 3d</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Female    |
| <b><u>Figure 3e</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Male                               |
| <b><u>Figure 3f</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Male      |
| <b><u>Figure 3g</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age: <65 Years                          |
| <b><u>Figure 3h</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with ≥180 Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age: <65 Years |

## Table of Contents

|                         |                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Figure 3i</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age: $\geq 65$ Years                                             |
| <b><u>Figure 3j</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age: $\geq 65$ Years                    |
| <b><u>Figure 3k</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; No Obesity                                                       |
| <b><u>Figure 3l</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; No Obesity                              |
| <b><u>Figure 3m</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Obesity                                                          |
| <b><u>Figure 3n</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Obesity                                 |
| <b><u>Figure 4a</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                    |
| <b><u>Figure 4b</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                           |
| <b><u>Figure 5a</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                          |
| <b><u>Figure 5b</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with $\geq 180$ Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 |
| <b><u>Figure 6a</u></b> | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                           |
| <b><u>Figure 6b</u></b> | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with $\geq 180$ Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025  |



## Table of Contents

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Figure 7a</u></b>  | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population), Censoring at Non-RCC Malignancy, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                                                                                                                                                                                                                                                                                                              |
| <b><u>Figure 7b</u></b>  | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure, Censoring at Non-RCC Malignancy, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                                                                                                                                                                                                                                                                                     |
| <b><u>Figure 8a</u></b>  | Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure (Trimmed Population), Censoring at Glucagon-Like Peptide-1 Receptor Agonist (GLP-1RA) or Insulin Initiation, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                                                                                                                                                                                                                                                        |
| <b><u>Figure 8b</u></b>  | Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with $\geq 180$ Days of Exposure, Censoring at Glucagon-Like Peptide-1 Receptor Agonist (GLP-1RA) or Insulin Initiation, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025                                                                                                                                                                                                                                                                               |
| <b><u>Appendix A</u></b> | Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (November 6, 2025)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b><u>Appendix B</u></b> | List of Generic and Brand Names of Medical Products Used to Define Exposures in this Request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b><u>Appendix C</u></b> | List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request |
| <b><u>Appendix D</u></b> | List of Generic and Brand Names of Medical Products for Renal Cell Carcinoma Chemotherapies Used in the Outcome Identification Algorithm in this Request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b><u>Appendix E</u></b> | List of Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b><u>Appendix F</u></b> | List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request                                                                        |
| <b><u>Appendix G</u></b> | List of Generic and Brand Names of Medical Products Used to Define Censoring Criteria in this Request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b><u>Appendix H</u></b> | List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request                                                                                      |
| <b><u>Appendix I</u></b> | List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b><u>Appendix J</u></b> | List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request                                                                                                                                                                                              |

| Table of Contents          |                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------|
| <b><u>Appendix K</u></b>   | Specifications Defining Parameters for cder_mpl2p_wp061 and cder_mpl1p_wp115                                   |
| <b><u>Appendix K.1</u></b> | Specifications Defining Baseline Covariates for cder_mpl2p_wp061 and cder_mpl1p_wp115                          |
| <b><u>Appendix K.2</u></b> | Specifications Defining Risk Scores, Utilization, and Stockpiling for cder_mpl2p_wp061 and cder_mpl1p_wp115    |
| <b><u>Appendix K.3</u></b> | Specifications Defining Renal Cell Carcinoma (RCC) Narrow Definition for cder_mpl2p_wp061 and cder_mpl1p_wp115 |
| <b><u>Appendix L</u></b>   | Design Diagram for cder_mpl2p_wp061 and cder_mpl1p_wp115                                                       |

## Glossary of Terms for Analyses Using Cohort Identification and Descriptive Analysis (CIDA) Module\*

**Amount Supplied** - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.

**Blackout Period** - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

**Care Setting** - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

**Ambulatory Visit (AV)** - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

**Emergency Department (ED)** - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

**Inpatient Hospital Stay (IP)** - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

**Non-Acute Institutional Stay (IS)** - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

**Other Ambulatory Visit (OA)** - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

**Charlson/Elixhauser Combined Comorbidity Score** - calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (e.g., in the 183 days prior to index).

**Code Days** - the minimum number of times the diagnosis must be found during the evaluation period in order to fulfill the algorithm to identify the corresponding patient characteristic.

**Cohort Definition (drug/exposure)** - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.

**Computed Start Marketing Date** - represents the first observed dispensing date among all valid users within a GROUP (scenario) within each Data Partner site.

**Days Supplied** - number of days supplied for all dispensings in qualifying treatment episodes.

**Eligible Members** - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

**Enrollment Gap** - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

**Episodes** - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

**Episode Gap** - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.

**Event Deduplication** - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

**Exposure Episode Length** - number of days after exposure initiation that is considered "exposed time."

**Exposure Extension Period** - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.

**Lookback Period** - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

**Maximum Episode Duration** - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Member-Years** - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

**Minimum Days Supplied** - specifies a minimum number of days in length of the days supplied for the episode to be considered.

**Minimum Episode Duration** - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Monitoring Period** - used to define time periods of interest for both sequential analysis and simple cohort characterization requests.

**Principal Diagnosis (PDX)** - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

**Query Period** - period in which the modular program looks for exposures and outcomes of interest.

**Switch Evaluation Step Value** - value used to differentiate evaluation step. Each switch pattern can support up to 2 evaluation steps (0 = switch pattern evaluation start; 1 = first evaluation; 2 = second evaluation).

**Switch Gap Inclusion Indicator** - indicator for whether gaps in treatment episodes that are included in a switch episode will be counted as part of the switch episode duration.

**Switch Pattern Cohort Inclusion Date** - indicates which date to use for inclusion into the switch pattern cohort of interest as well as optionally as the index date of the treatment episode initiating the switch pattern. Valid options are the product approval date, product marketing date, other requester defined date, or computed start marketing date.

**Switch Pattern Cohort Inclusion Strategy** - indicates how the switch pattern cohort inclusion date will be used: 01: used only as a switch cohort entry date. First treatment episode dispensing date is used as index for computing time to first switch; 02: used as switch cohort entry date and as initial switch step index date for computing time to first switch.

**Treatment Episode Truncation Indicator** - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

**Washout Period (drug/exposure)** - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

**Washout Period (event/outcome)** - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

**Years at Risk** - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

\*all terms may not be used in this report

## **Glossary of Terms for Analyses Using Propensity Score Analysis (PSA) Module\***

**Covariate** - requester defined binary variable to include in the propensity score estimation model (e.g., diabetes, heart failure, etc.) during requester-defined lookback period. Requester may also choose to add any of the following categorical, continuous, or count metrics to the propensity score estimation model:

1. Age (continuous)
2. Sex
3. Time period (i.e., monitoring period for sequential analyses)
4. Year of exposure
5. Comorbidity score
6. Medical utilization – number of inpatient stays
7. Medical utilization – number of institutional stays
8. Medical utilization – number of emergency department visits
9. Medical utilization – number of outpatient visits
10. Health care utilization – number of other ambulatory encounters (e.g., telemedicine, email consults)
11. Drug utilization – number of dispensings
12. Drug utilization – number of unique generics dispensed
13. Drug Utilization – number of unique drug classes dispensed

**Covariate Evaluation Window** - specified number of days relative to index date to evaluate the occurrence of covariates of interest. Note: members are required to have continuous enrollment during the covariate evaluation window, regardless of the value included in the "Continuous enrollment before exposure" field.

**Individual Level Data Return** - program may return individual-level, de-identified datasets to the Sentinel Operations Center (SOC). While the datasets contain a single row per patient for each specified analysis, patient identifiers such as a patient ID are not included in the output. Individual-level datasets are returned to the SOC, aggregated, and used to calculate effect estimates via Cox (proportional hazards) regression.

**Mahalanobis Distance** - provides a measure of balance across all variables while accounting for their correlation.

**Matching Caliper** - maximum allowed difference in propensity scores between treatment and control patients. Requester may select any caliper (e.g., 0.01, 0.025, and 0.05).

**Matching Ratio** - patients in exposed and comparator groups are nearest neighbor matched by a 1:1 or 1:n (up to 10) matching ratio.

**Matched Conditional and Unconditional Analysis** - in a conditional matched analysis, a Cox model, stratified by Data Partner site and matched set, is run on the matched population. This can be done for both the both 1:1 and 1:n matched cohorts. In an unconditional analysis, a Cox model, stratified by Data Partner site only, is run on the matched population. This can be done for the 1:1 matched cohort only.

**Propensity Score Stratification** - option to stratify propensity scores based on requester-defined percentiles in the unmatched population. In a stratified analysis, a Cox model, stratified by Data Partner site, is run on the stratified population. Note that all patients identified in exposure and comparator cohorts are used in the analysis.

**PSM Tool** - performs effect estimation by comparing exposure propensity-score matched parallel new user cohorts. Propensity score estimation and matching are conducted within each Sentinel Data Partner site via distributed programming code; data are returned to the SOC, aggregated, and used to calculate effect estimates.

**Risk-set Level Data Return** - alternative to the patient-level data return approach. In this approach, the PSM tool will produce de-identified, risk-set level datasets instead of or in addition to individual-level output. Whereas each observation in the patient-level datasets represents one patient in the cohort, each observation in the risk set dataset represents one event. Risk sets are created at the Data Partner site, returned to the SOC, aggregated, and used to calculate effect estimates via case-centered logistic regression.

**Subgroup Analysis** - may be conducted using any requester-defined covariates. Subgroup analyses may be performed in the unmatched and the matched population.

**Zero Cell Correction** - indicator for whether to screen variables with a zero correction added to each cell in the confounder/outcome 2x2 table. Recommended when the number of exposed outcomes is fewer than 150.

\*all terms may not be used in this report



**Table 1a. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

| Patient Characteristics <sup>1</sup>                                                          | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Unique patients                                                                               | 159,011         | 100.0%             | 921,012     | 100.0%             |                     |                         |
| Demographic Characteristics                                                                   | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Age (Years) <sup>*</sup>                                                                 | 60.7            | 10.3               | 65.2        | 11.1               | -4.571              | -0.426                  |
| Age                                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                                                                                   | 18,796          | 11.8%              | 74,905      | 8.1%               | 3.688               | 0.123                   |
| 45-54 years                                                                                   | 31,991          | 20.1%              | 129,140     | 14.0%              | 6.097               | 0.163                   |
| 55-64 years                                                                                   | 41,008          | 25.8%              | 193,039     | 21.0%              | 4.830               | 0.114                   |
| 65-74 years                                                                                   | 49,742          | 31.3%              | 307,435     | 33.4%              | -2.098              | -0.045                  |
| ≥ 75 years                                                                                    | 17,474          | 11.0%              | 216,493     | 23.5%              | -12.517             | -0.336                  |
| Sex <sup>*</sup>                                                                              |                 |                    |             |                    |                     |                         |
| Female                                                                                        | 76,097          | 47.9%              | 488,148     | 53.0%              | -5.145              | -0.103                  |
| Male                                                                                          | 82,914          | 52.1%              | 432,864     | 47.0%              | 5.145               | 0.103                   |
| Race <sup>2</sup>                                                                             |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native                                                              | 841             | 0.5%               | 5,123       | 0.6%               | -0.027              | -0.004                  |
| Asian                                                                                         | 4,354           | 2.7%               | 43,009      | 4.7%               | -1.932              | -0.102                  |
| Black or African American                                                                     | 14,975          | 9.4%               | 115,634     | 12.6%              | -3.138              | -0.100                  |
| Multi-racial                                                                                  | 758             | 0.5%               | 3,486       | 0.4%               | 0.098               | 0.015                   |
| Native Hawaiian or Other Pacific Islander                                                     | 549             | 0.3%               | 3,113       | 0.3%               | 0.007               | 0.001                   |
| Unknown                                                                                       | 49,592          | 31.2%              | 207,053     | 22.5%              | 8.707               | 0.197                   |
| White                                                                                         | 87,942          | 55.3%              | 543,594     | 59.0%              | -3.716              | -0.075                  |
| Hispanic origin <sup>2</sup>                                                                  |                 |                    |             |                    |                     |                         |
| Yes                                                                                           | 9,968           | 6.3%               | 70,288      | 7.6%               | -1.363              | -0.054                  |
| No                                                                                            | 103,908         | 65.3%              | 678,945     | 73.7%              | -8.371              | -0.183                  |
| Unknown                                                                                       | 45,135          | 28.4%              | 171,779     | 18.7%              | 9.734               | 0.231                   |
| Year <sup>*</sup>                                                                             |                 |                    |             |                    |                     |                         |
| 2013                                                                                          | 4,031           | 2.5%               | 71,244      | 7.7%               | -5.200              | -0.237                  |
| 2014                                                                                          | 19,778          | 12.4%              | 97,194      | 10.6%              | 1.885               | 0.059                   |
| 2015                                                                                          | 36,795          | 23.1%              | 97,885      | 10.6%              | 12.512              | 0.339                   |
| 2016                                                                                          | 31,248          | 19.7%              | 98,091      | 10.7%              | 9.001               | 0.253                   |
| 2017                                                                                          | 26,115          | 16.4%              | 118,250     | 12.8%              | 3.584               | 0.102                   |
| 2018                                                                                          | 14,529          | 9.1%               | 107,079     | 11.6%              | -2.489              | -0.082                  |
| 2019+                                                                                         | 26,515          | 16.7%              | 331,269     | 36.0%              | -19.293             | -0.449                  |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                 |                    |             |                    |                     |                         |
| Retinopathy <sup>*</sup>                                                                      | 17,321          | 10.9%              | 114,626     | 12.4%              | -1.553              | -0.048                  |
| Nephropathy <sup>*</sup>                                                                      | 12,727          | 8.0%               | 104,227     | 11.3%              | -3.313              | -0.112                  |
| Neuropathy <sup>*</sup>                                                                       | 37,567          | 23.6%              | 228,368     | 24.8%              | -1.170              | -0.027                  |
| Any IPP or ED Hypoglycemia Visit                                                              | 458             | 0.3%               | 4,910       | 0.5%               | -0.245              | -0.038                  |
| Any IPP or ED Hyperglycemia Visit or Lab <sup>*</sup>                                         | 84,529          | 53.2%              | 454,157     | 49.3%              | 3.849               | 0.077                   |
| Hypertension <sup>*</sup>                                                                     | 128,907         | 81.1%              | 762,212     | 82.8%              | -1.690              | -0.044                  |
| Dyslipidemia <sup>*</sup>                                                                     | 123,764         | 77.8%              | 717,279     | 77.9%              | -0.046              | -0.001                  |

**Table 1a. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                                   | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                                   | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                                   | Number          | Percent            | Number      | Percent            |                     |                         |
| Coronary Artery Disease*                                                                          | 32,125          | 20.2%              | 212,805     | 23.1%              | -2.903              | -0.071                  |
| Cerebrovascular Disease*                                                                          | 6,665           | 4.2%               | 59,949      | 6.5%               | -2.318              | -0.103                  |
| Peripheral Vascular Disease*                                                                      | 16,447          | 10.3%              | 133,914     | 14.5%              | -4.197              | -0.127                  |
| Congestive Heart Failure*                                                                         | 11,960          | 7.5%               | 95,121      | 10.3%              | -2.806              | -0.099                  |
| Chronic Obstructive Pulmonary Disease*                                                            | 21,904          | 13.8%              | 142,478     | 15.5%              | -1.695              | -0.048                  |
| Depression*                                                                                       | 28,615          | 18.0%              | 175,013     | 19.0%              | -1.007              | -0.026                  |
| Obesity*                                                                                          | 56,369          | 35.4%              | 278,426     | 30.2%              | 5.219               | 0.111                   |
| Cancer (Excluding NMSC)*                                                                          | 23,050          | 14.5%              | 164,275     | 17.8%              | -3.341              | -0.091                  |
| Hepatitis C Infection                                                                             | 1,551           | 1.0%               | 9,314       | 1.0%               | -0.036              | -0.004                  |
| History of Kidney Stones*                                                                         | 5,510           | 3.5%               | 36,200      | 3.9%               | -0.465              | -0.025                  |
| Sickle Cell Disease                                                                               | 41              | 0.0%               | 303         | 0.0%               | -0.007              | -0.004                  |
| Smoking*                                                                                          | 29,277          | 18.4%              | 181,449     | 19.7%              | -1.289              | -0.033                  |
| Alcohol Use*                                                                                      | 3,330           | 2.1%               | 21,196      | 2.3%               | -0.207              | -0.014                  |
| Any History of RCC (Ever)                                                                         | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                      | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                  | 128             | 0.1%               | 1,199       | 0.1%               | -0.050              | -0.015                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                        | 144,866         | 91.1%              | 822,544     | 89.3%              | 1.796               | 0.060                   |
| Sulfonylureas*                                                                                    | 76,509          | 48.1%              | 437,689     | 47.5%              | 0.593               | 0.012                   |
| Thiazolidinediones*                                                                               | 16,606          | 10.4%              | 67,869      | 7.4%               | 3.074               | 0.108                   |
| Alpha Glucosidase Inhibitor                                                                       | 949             | 0.6%               | 4,610       | 0.5%               | 0.096               | 0.013                   |
| Meglitinides                                                                                      | 2,070           | 1.3%               | 11,756      | 1.3%               | 0.025               | 0.002                   |
|                                                                                                   |                 |                    |             |                    |                     |                         |
|                                                                                                   | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                  | 1.5             | 0.6                | 1.5         | 0.6                | 0.056               | 0.095                   |
|                                                                                                   |                 |                    |             |                    |                     |                         |
| N of Oral Antidiabetic Drug Classes                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                                 | 86,254          | 54.2%              | 534,107     | 58.0%              | -3.747              | -0.076                  |
| 2                                                                                                 | 63,758          | 40.1%              | 351,238     | 38.1%              | 1.961               | 0.040                   |
| 3                                                                                                 | 8,768           | 5.5%               | 34,799      | 3.8%               | 1.736               | 0.083                   |
| 4+                                                                                                | 230             | 0.1%               | 868         | 0.1%               | 0.050               | 0.015                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                                 | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                                  | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                                 | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                           | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                             | 37,932          | 23.9%              | 121,918     | 13.2%              | 10.618              | 0.276                   |
| Short- and Rapid-Acting Insulin                                                                   | 18,055          | 11.4%              | 50,810      | 5.5%               | 5.838               | 0.211                   |
| Combination Insulins                                                                              | 5,182           | 3.3%               | 13,859      | 1.5%               | 1.754               | 0.115                   |
| Any insulin*                                                                                      | 43,470          | 27.3%              | 150,695     | 16.4%              | 10.976              | 0.268                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                                 | 78,530          | 49.4%              | 431,754     | 46.9%              | 2.508               | 0.050                   |

**Table 1a. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 43,392          | 27.3%              | 259,029     | 28.1%              | -0.836              | -0.019                  |
| Beta Blockers*                                                                                | 55,426          | 34.9%              | 344,333     | 37.4%              | -2.530              | -0.053                  |
| Calcium Channel Blockers*                                                                     | 41,159          | 25.9%              | 272,833     | 29.6%              | -3.739              | -0.084                  |
| Statins*                                                                                      | 112,514         | 70.8%              | 662,321     | 71.9%              | -1.154              | -0.026                  |
| Loop Diuretics                                                                                | 20,493          | 12.9%              | 129,466     | 14.1%              | -1.169              | -0.034                  |
| Other Diuretics                                                                               | 54,603          | 34.3%              | 309,890     | 33.6%              | 0.692               | 0.015                   |
| Any Diuretic*                                                                                 | 67,198          | 42.3%              | 391,314     | 42.5%              | -0.227              | -0.005                  |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 79,907          | 50.3%              | 438,375     | 47.6%              | 2.655               | 0.053                   |
|                                                                                               |                 |                    |             |                    |                     |                         |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | 3.0             | 1.4                | 3.0         | 1.4                | -0.033              | -0.023                  |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Influenza Vaccine*                                                                            | 71,752          | 45.1%              | 441,093     | 47.9%              | -2.768              | -0.056                  |
| Pneumococcal Vaccine (Ever)*                                                                  | 55,068          | 34.6%              | 367,631     | 39.9%              | -5.284              | -0.109                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                    |             |                    |                     |                         |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | 17.4            | 16.4               | 18.4        | 17.9               | -0.985              | -0.057                  |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Number of AV Visits (Categorical)*                                                            |                 |                    |             |                    |                     |                         |
| 0-4                                                                                           | 18,969          | 11.9%              | 107,845     | 11.7%              | 0.220               | 0.007                   |
| 5-10                                                                                          | 46,642          | 29.3%              | 250,639     | 27.2%              | 2.119               | 0.047                   |
| 11-15                                                                                         | 28,536          | 17.9%              | 162,555     | 17.6%              | 0.296               | 0.008                   |
| 16+                                                                                           | 64,864          | 40.8%              | 399,973     | 43.4%              | -2.635              | -0.053                  |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                                                      | 0.6             | 1.7                | 0.7         | 1.8                | -0.053              | -0.031                  |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Number of ED Visits (Categorical)*                                                            |                 |                    |             |                    |                     |                         |
| 0                                                                                             | 112,108         | 70.5%              | 629,112     | 68.3%              | 2.197               | 0.048                   |
| 1                                                                                             | 26,929          | 16.9%              | 165,443     | 18.0%              | -1.028              | -0.027                  |
| 2+                                                                                            | 19,974          | 12.6%              | 126,457     | 13.7%              | -1.169              | -0.035                  |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                                                  | 0.2             | 0.5                | 0.2         | 0.7                | -0.087              | -0.138                  |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Number of IP Visits (Categorical)*                                                            |                 |                    |             |                    |                     |                         |
| 0                                                                                             | 140,420         | 88.3%              | 769,614     | 83.6%              | 4.747               | 0.137                   |
| 1                                                                                             | 14,355          | 9.0%               | 108,036     | 11.7%              | -2.702              | -0.089                  |
| 2+                                                                                            | 4,236           | 2.7%               | 43,362      | 4.7%               | -2.044              | -0.109                  |

**Table 1a. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

| Risk Scores (Measured in the 365 Days Prior to Index)              | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.3             | 1.5                | 1.5         | 1.7                | -0.271              | -0.166                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 70,750          | 44.5%              | 366,019     | 39.7%              | 4.753               | 0.096                   |
| 1                                                                  | 34,238          | 21.5%              | 182,774     | 19.8%              | 1.687               | 0.042                   |
| 2                                                                  | 24,378          | 15.3%              | 149,558     | 16.2%              | -0.907              | -0.025                  |
| 3+                                                                 | 29,645          | 18.6%              | 222,661     | 24.2%              | -5.532              | -0.135                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.1                | -0.009              | -0.191                  |
| Claims-Based Frailty Index Categories *                            | Number          | Percent            | Number      | Percent            |                     |                         |
| 0.25+                                                              | 6,417           | 4.0%               | 69,480      | 7.5%               | -3.508              | -0.151                  |
| <0.25                                                              | 152,594         | 96.0%              | 851,532     | 92.5%              | 3.508               | 0.151                   |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>                            | 1.2             | 2.0                | 1.7         | 2.5                | -0.524              | -0.235                  |
| Combined Comorbidity Score Categories *                            | Number          | Percent            | Number      | Percent            |                     |                         |
| <1                                                                 | 70,669          | 44.4%              | 344,336     | 37.4%              | 7.056               | 0.144                   |
| 1                                                                  | 35,859          | 22.6%              | 195,372     | 21.2%              | 1.339               | 0.032                   |
| 2                                                                  | 21,214          | 13.3%              | 126,834     | 13.8%              | -0.430              | -0.013                  |
| 3+                                                                 | 31,269          | 19.7%              | 254,470     | 27.6%              | -7.965              | -0.188                  |
| <b>Post-Index Covariates Assessed Through Day 89</b>               |                 |                    |             |                    |                     |                         |
| Retinopathy **                                                     | 20,425          | 12.8%              | 134,786     | 14.6%              | -1.790              | -0.052                  |
| Nephropathy **                                                     | 16,840          | 10.6%              | 137,223     | 14.9%              | -4.309              | -0.129                  |
| Neuropathy **                                                      | 43,242          | 27.2%              | 261,470     | 28.4%              | -1.195              | -0.027                  |
| Any IPP or ED Hypoglycemia                                         | 165             | 0.1%               | 1,510       | 0.2%               | -0.060              | -0.016                  |
| Any IPP, ED or Lab Hyperglycemia                                   | 51,597          | 32.4%              | 285,321     | 31.0%              | 1.470               | 0.032                   |
| Frailty Indicators **                                              | 26,193          | 16.5%              | 186,275     | 20.2%              | -3.753              | -0.097                  |
| Pneumococcal Vaccine **                                            | 58,550          | 36.8%              | 387,392     | 42.1%              | -5.240              | -0.107                  |
| GLP-1RA or GIP/GLP-1RA **                                          | 4,012           | 2.5%               | 13,637      | 1.5%               | 1.042               | 0.074                   |
| Insulin Initiation **                                              | 3,561           | 2.2%               | 31,766      | 3.4%               | -1.210              | -0.073                  |
| Insulin or GLP-1RA                                                 | 7,347           | 4.6%               | 44,261      | 4.8%               | -0.185              | -0.009                  |
| Influenza Vaccine **                                               | 73,048          | 45.9%              | 448,368     | 48.7%              | -2.743              | -0.055                  |
| Preventive Healthcare **                                           | 148,503         | 93.4%              | 855,617     | 92.9%              | 0.492               | 0.019                   |
| Any HbA1c Test **                                                  | 74,765          | 47.0%              | 416,558     | 45.2%              | 1.790               | 0.036                   |
| ACEis                                                              | 64,408          | 40.5%              | 359,938     | 39.1%              | 1.425               | 0.029                   |
| ARBs                                                               | 38,612          | 24.3%              | 230,487     | 25.0%              | -0.743              | -0.017                  |
| Beta Blockers                                                      | 47,841          | 30.1%              | 303,840     | 33.0%              | -2.903              | -0.063                  |
| Calcium Channel Blockers                                           | 34,627          | 21.8%              | 234,618     | 25.5%              | -3.697              | -0.087                  |

**Table 1a. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Statins                                                                   | 97,654          | 61.4%              | 582,938     | 63.3%              | -1.880              | -0.039                  |
| Any Diuretics                                                             | 53,956          | 33.9%              | 326,710     | 35.5%              | -1.541              | -0.032                  |
| Any NSAID                                                                 | 46,598          | 29.3%              | 256,200     | 27.8%              | 1.488               | 0.033                   |
| CV Medication Classes (Continuous)                                        | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                           | 2.4             | 1.4                | 2.5         | 1.4                | -0.079              | -0.056                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 11,524          | 7.2%               | 82,342      | 8.9%               | -1.693              | -0.062                  |
| Any ED Visits**                                                           | 17,021          | 10.7%              | 110,028     | 11.9%              | -1.242              | -0.039                  |
| Any IP Visits**                                                           | 6,846           | 4.3%               | 65,904      | 7.2%               | -2.850              | -0.123                  |
| No AV Visits                                                              | 14,561          | 9.2%               | 74,982      | 8.1%               | 1.016               | 0.036                   |
| 1-3 AV Visits**                                                           | 69,205          | 43.5%              | 374,068     | 40.6%              | 2.907               | 0.059                   |
| >3 AV Visits**                                                            | 75,245          | 47.3%              | 471,962     | 51.2%              | -3.923              | -0.079                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 22,687          | 14.3%              | 149,361     | 16.2%              | -1.949              | -0.054                  |
| Nephropathy**                                                             | 20,103          | 12.6%              | 159,703     | 17.3%              | -4.697              | -0.132                  |
| Neuropathy**                                                              | 47,535          | 29.9%              | 285,221     | 31.0%              | -1.074              | -0.023                  |
| Any IPP or ED Hypoglycemia                                                | 171             | 0.1%               | 1,260       | 0.1%               | -0.029              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 43,047          | 27.1%              | 230,845     | 25.1%              | 2.007               | 0.046                   |
| Frailty Indicators**                                                      | 27,654          | 17.4%              | 197,953     | 21.5%              | -4.102              | -0.104                  |
| Pneumococcal Vaccine**                                                    | 61,551          | 38.7%              | 403,003     | 43.8%              | -5.048              | -0.103                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 3,339           | 2.1%               | 14,913      | 1.6%               | 0.481               | 0.036                   |
| Insulin Initiation**                                                      | 32,039          | 20.1%              | 107,706     | 11.7%              | 8.455               | 0.233                   |
| Insulin or GLP-1RA Initiation                                             | 34,383          | 21.6%              | 119,543     | 13.0%              | 8.644               | 0.230                   |
| Influenza Vaccine**                                                       | 72,947          | 45.9%              | 446,956     | 48.5%              | -2.653              | -0.053                  |
| Preventive Healthcare**                                                   | 147,581         | 92.8%              | 849,205     | 92.2%              | 0.608               | 0.023                   |
| Any HbA1c Test**                                                          | 82,947          | 52.2%              | 465,406     | 50.5%              | 1.632               | 0.033                   |
| ACEi                                                                      | 60,046          | 37.8%              | 333,446     | 36.2%              | 1.558               | 0.032                   |
| ARB                                                                       | 36,802          | 23.1%              | 218,328     | 23.7%              | -0.561              | -0.013                  |
| Beta Blockers                                                             | 45,931          | 28.9%              | 288,315     | 31.3%              | -2.419              | -0.053                  |
| Calcium Channel Blockers                                                  | 32,895          | 20.7%              | 220,703     | 24.0%              | -3.276              | -0.079                  |
| Statins                                                                   | 92,449          | 58.1%              | 545,107     | 59.2%              | -1.046              | -0.021                  |
| Any Diuretics                                                             | 50,357          | 31.7%              | 304,695     | 33.1%              | -1.414              | -0.030                  |
| Any NSAID                                                                 | 43,658          | 27.5%              | 232,958     | 25.3%              | 2.162               | 0.049                   |
| CV Medication Classes (Continuous)                                        | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                           | 2.3             | 1.5                | 2.3         | 1.5                | -0.050              | -0.034                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 27,400          | 17.2%              | 155,575     | 16.9%              | 0.340               | 0.009                   |
| Any ED Visits**                                                           | 15,938          | 10.0%              | 97,969      | 10.6%              | -0.614              | -0.020                  |

**Table 1a. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                           | Medical Product |           |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|-----------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |           | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent   | Number      | Percent |                     |                         |
| Any IP visits**                                                           | 6,688           | 4.2%      | 51,614      | 5.6%    | -1.398              | -0.065                  |
| No AV visits                                                              | 24,979          | 15.7%     | 147,015     | 16.0%   | -0.253              | -0.007                  |
| 1-3 AV visits**                                                           | 67,366          | 42.4%     | 365,828     | 39.7%   | 2.645               | 0.054                   |
| >3 AV visits**                                                            | 66,666          | 41.9%     | 408,169     | 44.3%   | -2.392              | -0.048                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |           |             |         |                     |                         |
| Retinopathy**                                                             | 24,751          | 15.6%     | 162,080     | 17.6%   | -2.032              | -0.055                  |
| Nephropathy**                                                             | 23,015          | 14.5%     | 179,110     | 19.4%   | -4.973              | -0.133                  |
| Neuropathy**                                                              | 51,525          | 32.4%     | 305,943     | 33.2%   | -0.815              | -0.017                  |
| Any IPP or ED Hypoglycemia                                                | 176             | 0.1%      | 1,164       | 0.1%    | -0.016              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 38,963          | 24.5%     | 209,049     | 22.7%   | 1.806               | 0.043                   |
| Frailty Indicators**                                                      | 29,053          | 18.3%     | 208,012     | 22.6%   | -4.314              | -0.107                  |
| Pneumococcal Vaccine**                                                    | 64,491          | 40.6%     | 417,345     | 45.3%   | -4.756              | -0.096                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 5,298           | 3.3%      | 21,164      | 2.3%    | 1.034               | 0.063                   |
| Insulin Initiation**                                                      | 6,886           | 4.3%      | 43,119      | 4.7%    | -0.351              | -0.017                  |
| Insulin or GLP-1RA Initiation                                             | 11,797          | 7.4%      | 62,424      | 6.8%    | 0.641               | 0.025                   |
| Influenza Vaccine**                                                       | 72,814          | 45.8%     | 444,033     | 48.2%   | -2.420              | -0.048                  |
| Preventive Healthcare**                                                   | 145,704         | 91.6%     | 837,055     | 90.9%   | 0.747               | 0.026                   |
| Any HbA1c Test**                                                          | 76,732          | 48.3%     | 424,829     | 46.1%   | 2.129               | 0.043                   |
| ACEi                                                                      | 56,677          | 35.6%     | 312,087     | 33.9%   | 1.758               | 0.037                   |
| ARB                                                                       | 35,377          | 22.2%     | 208,503     | 22.6%   | -0.390              | -0.009                  |
| Beta Blockers                                                             | 44,182          | 27.8%     | 276,201     | 30.0%   | -2.203              | -0.049                  |
| Calcium Channel Blockers                                                  | 31,428          | 19.8%     | 210,393     | 22.8%   | -3.079              | -0.075                  |
| Statins                                                                   | 88,554          | 55.7%     | 516,612     | 56.1%   | -0.401              | -0.008                  |
| Any Diuretics                                                             | 47,755          | 30.0%     | 288,320     | 31.3%   | -1.272              | -0.028                  |
| Any NSAID                                                                 | 41,477          | 26.1%     | 218,464     | 23.7%   | 2.364               | 0.055                   |
|                                                                           |                 |           |             |         |                     |                         |
|                                                                           |                 | Standard  |             |         | Standard            |                         |
|                                                                           |                 | Deviation |             |         | Deviation           |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.5       | 2.2         | 1.5     | -0.032              | -0.021                  |
|                                                                           |                 |           |             |         |                     |                         |
|                                                                           |                 | Number    |             |         | Number              |                         |
|                                                                           |                 | Percent   |             |         | Percent             |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 26,801          | 16.9%     | 153,510     | 16.7%   | 0.187               | 0.005                   |
| Any ED Visits**                                                           | 15,212          | 9.6%      | 92,632      | 10.1%   | -0.491              | -0.017                  |
| Any IP Visits**                                                           | 6,527           | 4.1%      | 48,768      | 5.3%    | -1.190              | -0.056                  |
| No AV Visits                                                              | 32,038          | 20.1%     | 191,294     | 20.8%   | -0.622              | -0.015                  |
| 1-3 AV Visits**                                                           | 63,361          | 39.8%     | 345,697     | 37.5%   | 2.312               | 0.047                   |
| >3 AV Visits**                                                            | 63,612          | 40.0%     | 384,021     | 41.7%   | -1.691              | -0.034                  |

**Table 1a. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 34,282          | 21.6%   | 127,557     | 13.8%   | 7.710               | 0.203                   |
| Post-Index Insulin Initiation                                             | 20,015          | 12.6%   | 143,314     | 15.6%   | -2.973              | -0.086                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\* Covariate included in the treatment and censoring propensity score logistic regression models.

\*\* Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup> Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup> Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup> Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup> Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup> Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.



**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 159,011         | N/A                | 157,810     | N/A                |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 60.7            | 10.3               | 60.8        | 10.3               | -0.078              | -0.008                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 18,796          | 11.8%              | 18,245      | 11.6%              | 0.259               | 0.008                   |
| 45-54 years                               | 31,991          | 20.1%              | 32,096      | 20.3%              | -0.220              | -0.006                  |
| 55-64 years                               | 41,008          | 25.8%              | 40,610      | 25.7%              | 0.056               | 0.001                   |
| 65-74 years                               | 49,742          | 31.3%              | 48,861      | 31.0%              | 0.320               | 0.008                   |
| ≥ 75 years                                | 17,474          | 11.0%              | 17,998      | 11.4%              | -0.416              | -0.014                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 76,097          | 47.9%              | 75,522      | 47.9%              | 0.000               | 0.000                   |
| Male                                      | 82,914          | 52.1%              | 82,288      | 52.1%              | -0.000              | -0.000                  |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 841             | 0.5%               | 886         | 0.6%               | -0.033              | -0.004                  |
| Asian                                     | 4,354           | 2.7%               | 5,707       | 3.6%               | -0.878              | -0.050                  |
| Black or African American                 | 14,975          | 9.4%               | 18,511      | 11.7%              | -2.312              | -0.076                  |
| Multi-racial                              | 758             | 0.5%               | 704         | 0.4%               | 0.030               | 0.005                   |
| Native Hawaiian or Other Pacific Islander | 549             | 0.3%               | 509         | 0.3%               | 0.023               | 0.004                   |
| Unknown                                   | 49,592          | 31.2%              | 50,488      | 32.0%              | -0.805              | -0.023                  |
| White                                     | 87,942          | 55.3%              | 81,004      | 51.3%              | 3.976               | 0.094                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 9,968           | 6.3%               | 11,475      | 7.3%               | -1.003              | -0.042                  |
| No                                        | 103,908         | 65.3%              | 102,114     | 64.7%              | 0.640               | 0.020                   |
| Unknown                                   | 45,135          | 28.4%              | 44,221      | 28.0%              | 0.363               | 0.014                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 4,031           | 2.5%               | 4,003       | 2.5%               | -0.001              | -0.000                  |
| 2014                                      | 19,778          | 12.4%              | 19,470      | 12.3%              | 0.101               | 0.003                   |
| 2015                                      | 36,795          | 23.1%              | 35,779      | 22.7%              | 0.468               | 0.011                   |
| 2016                                      | 31,248          | 19.7%              | 31,002      | 19.6%              | 0.007               | 0.000                   |
| 2017                                      | 26,115          | 16.4%              | 26,216      | 16.6%              | -0.189              | -0.005                  |
| 2018                                      | 14,529          | 9.1%               | 14,641      | 9.3%               | -0.140              | -0.005                  |
| 2019+                                     | 26,515          | 16.7%              | 26,700      | 16.9%              | -0.244              | -0.007                  |

**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                 |                    |             |                    |                     |                         |
| Retinopathy*                                                                                  | 17,321          | 10.9%              | 17,206      | 10.9%              | -0.010              | -0.000                  |
| Nephropathy*                                                                                  | 12,727          | 8.0%               | 12,765      | 8.1%               | -0.085              | -0.003                  |
| Neuropathy*                                                                                   | 37,567          | 23.6%              | 37,332      | 23.7%              | -0.031              | -0.001                  |
| Any IPP or ED Hypoglycemia Visit                                                              | 458             | 0.3%               | 615         | 0.4%               | -0.102              | -0.017                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 84,529          | 53.2%              | 83,597      | 53.0%              | 0.186               | 0.004                   |
| Hypertension*                                                                                 | 128,907         | 81.1%              | 127,847     | 81.0%              | 0.055               | 0.001                   |
| Dyslipidemia*                                                                                 | 123,764         | 77.8%              | 122,500     | 77.6%              | 0.209               | 0.005                   |
| Coronary Artery Disease*                                                                      | 32,125          | 20.2%              | 32,069      | 20.3%              | -0.118              | -0.003                  |
| Cerebrovascular Disease*                                                                      | 6,665           | 4.2%               | 6,692       | 4.2%               | -0.049              | -0.002                  |
| Peripheral Vascular Disease*                                                                  | 16,447          | 10.3%              | 16,418      | 10.4%              | -0.060              | -0.002                  |
| Congestive Heart Failure*                                                                     | 11,960          | 7.5%               | 12,030      | 7.6%               | -0.101              | -0.004                  |
| Chronic Obstructive Pulmonary Disease*                                                        | 21,904          | 13.8%              | 21,842      | 13.8%              | -0.066              | -0.002                  |
| Depression*                                                                                   | 28,615          | 18.0%              | 28,419      | 18.0%              | -0.013              | -0.000                  |
| Obesity*                                                                                      | 56,369          | 35.4%              | 55,734      | 35.3%              | 0.133               | 0.003                   |
| Cancer (Excluding NMSC)*                                                                      | 23,050          | 14.5%              | 22,967      | 14.6%              | -0.058              | -0.002                  |
| Hepatitis C Infection                                                                         | 1,551           | 1.0%               | 1,675       | 1.1%               | -0.086              | -0.009                  |
| History of Kidney Stones*                                                                     | 5,510           | 3.5%               | 5,494       | 3.5%               | -0.016              | -0.001                  |
| Sickle Cell Disease                                                                           | 41              | 0.0%               | 47          | 0.0%               | -0.004              | -0.003                  |
| Smoking*                                                                                      | 29,277          | 18.4%              | 29,224      | 18.5%              | -0.107              | -0.003                  |
| Alcohol Use*                                                                                  | 3,330           | 2.1%               | 3,352       | 2.1%               | -0.030              | -0.002                  |
| Any History of RCC (Ever)                                                                     | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                  | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                              | 128             | 0.1%               | 159         | 0.1%               | -0.020              | -0.007                  |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                    | 144,866         | 91.1%              | 143,711     | 91.1%              | 0.039               | 0.001                   |
| Sulfonylureas*                                                                                | 76,509          | 48.1%              | 76,330      | 48.4%              | -0.253              | -0.005                  |
| Thiazolidinediones*                                                                           | 16,606          | 10.4%              | 16,428      | 10.4%              | 0.033               | 0.001                   |
| Alpha Glucosidase Inhibitor                                                                   | 949             | 0.6%               | 810         | 0.5%               | 0.084               | 0.011                   |
| Meglitinides                                                                                  | 2,070           | 1.3%               | 1,764       | 1.1%               | 0.184               | 0.017                   |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                              | 1.5             | 0.6                | 1.5         | 0.6                | 0.001               | 0.001                   |

**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 86,254          | 54.2%              | 85,438      | 54.1%              | 0.104               | 0.002                   |
| 2                                                                                             | 63,758          | 40.1%              | 63,706      | 40.4%              | -0.272              | -0.006                  |
| 3                                                                                             | 8,768           | 5.5%               | 8,473       | 5.4%               | 0.145               | 0.006                   |
| 4+                                                                                            | 230             | 0.1%               | 193         | 0.1%               | 0.022               | 0.006                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- And Intermediate-Acting Insulin                                                         | 37,932          | 23.9%              | 35,284      | 22.4%              | 1.497               | 0.036                   |
| Short- And Rapid-Acting Insulin                                                               | 18,055          | 11.4%              | 13,330      | 8.4%               | 2.908               | 0.098                   |
| Combination Insulins                                                                          | 5,182           | 3.3%               | 4,241       | 2.7%               | 0.571               | 0.034                   |
| Any Insulin*                                                                                  | 43,470          | 27.3%              | 42,286      | 26.8%              | 0.543               | 0.012                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 78,530          | 49.4%              | 77,890      | 49.4%              | 0.030               | 0.001                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 43,392          | 27.3%              | 43,047      | 27.3%              | 0.011               | 0.000                   |
| Beta Blockers*                                                                                | 55,426          | 34.9%              | 55,123      | 34.9%              | -0.073              | -0.002                  |
| Calcium Channel Blockers*                                                                     | 41,159          | 25.9%              | 40,977      | 26.0%              | -0.081              | -0.002                  |
| Statins*                                                                                      | 112,514         | 70.8%              | 111,595     | 70.7%              | 0.044               | 0.001                   |
| Loop Diuretics                                                                                | 20,493          | 12.9%              | 19,500      | 12.4%              | 0.531               | 0.016                   |
| Other Diuretics                                                                               | 54,603          | 34.3%              | 54,632      | 34.6%              | -0.279              | -0.006                  |
| Any Diuretic*                                                                                 | 67,198          | 42.3%              | 66,660      | 42.2%              | 0.019               | 0.000                   |
| Aspirin, Acetaminophen Or Other NSAIDs*                                                       | 79,907          | 50.3%              | 79,310      | 50.3%              | -0.004              | -0.000                  |
|                                                                                               |                 |                    |             |                    |                     |                         |
| Count Of CV Medication Classes During Baseline (Continuous)                                   | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 3.0             | 1.4                | 3.0         | 1.4                | -0.001              | -0.000                  |
|                                                                                               |                 |                    |             |                    |                     |                         |
| Influenza Vaccine*                                                                            | Number          | Percent            | Number      | Percent            |                     |                         |
|                                                                                               | 71,752          | 45.1%              | 71,348      | 45.2%              | -0.087              | -0.002                  |
| Pneumococcal Vaccine (Ever)*                                                                  | 55,068          | 34.6%              | 54,952      | 34.8%              | -0.190              | -0.004                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                    |             |                    |                     |                         |
| Mean Number Of Ambulatory Encounters                                                          | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 17.4            | 16.4               | 17.5        | 17.0               | -0.033              | -0.002                  |

**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number Of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 18,969          | 11.9%              | 18,798      | 11.9%              | 0.017               | 0.001                   |
| 5-10                                                               | 46,642          | 29.3%              | 46,219      | 29.3%              | 0.045               | 0.001                   |
| 11-15                                                              | 28,536          | 17.9%              | 28,260      | 17.9%              | 0.038               | 0.001                   |
| 16+                                                                | 64,864          | 40.8%              | 64,533      | 40.9%              | -0.100              | -0.002                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number Of Emergency Room Encounters                           | 0.6             | 1.7                | 0.6         | 1.7                | -0.012              | -0.007                  |
| Number Of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 112,108         | 70.5%              | 111,047     | 70.4%              | 0.136               | 0.003                   |
| 1                                                                  | 26,929          | 16.9%              | 26,779      | 17.0%              | -0.034              | -0.001                  |
| 2+                                                                 | 19,974          | 12.6%              | 19,985      | 12.7%              | -0.102              | -0.003                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number Of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.2         | 0.6                | -0.007              | -0.012                  |
| Number Of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 140,420         | 88.3%              | 139,250     | 88.2%              | 0.069               | 0.002                   |
| 1                                                                  | 14,355          | 9.0%               | 14,308      | 9.1%               | -0.039              | -0.001                  |
| 2+                                                                 | 4,236           | 2.7%               | 4,252       | 2.7%               | -0.031              | -0.002                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.3             | 1.5                | 1.3         | 1.5                | -0.012              | -0.008                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 70,750          | 44.5%              | 70,097      | 44.4%              | 0.075               | 0.002                   |
| 1                                                                  | 34,238          | 21.5%              | 33,821      | 21.4%              | 0.101               | 0.002                   |
| 2                                                                  | 24,378          | 15.3%              | 24,261      | 15.4%              | -0.042              | -0.001                  |
| 3+                                                                 | 29,645          | 18.6%              | 29,632      | 18.8%              | -0.133              | -0.004                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.0                | -0.001              | -0.023                  |

**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories*               |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 6,417           | 4.0%               | 6,429       | 4.1%               | -0.038              | -0.002                  |
| <0.25                                                | 152,594         | 96.0%              | 151,381     | 95.9%              | 0.038               | 0.002                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.2             | 2.0                | 1.3         | 2.1                | -0.040              | -0.020                  |
| Combined Comorbidity Score Categories*               |                 |                    |             |                    |                     |                         |
| <1                                                   | 70,669          | 44.4%              | 69,756      | 44.2%              | 0.240               | 0.005                   |
| 1                                                    | 35,859          | 22.6%              | 35,583      | 22.5%              | 0.004               | 0.000                   |
| 2                                                    | 21,214          | 13.3%              | 21,146      | 13.4%              | -0.058              | -0.002                  |
| 3+                                                   | 31,269          | 19.7%              | 31,326      | 19.9%              | -0.186              | -0.005                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy**                                        | 20,425          | 12.8%              | 20,558      | 13.0%              | -0.182              | -0.005                  |
| Nephropathy**                                        | 16,840          | 10.6%              | 17,685      | 11.2%              | -0.616              | -0.020                  |
| Neuropathy**                                         | 43,242          | 27.2%              | 43,162      | 27.4%              | -0.156              | -0.004                  |
| Any IPP Or ED Hypoglycemia                           | 165             | 0.1%               | 222         | 0.1%               | -0.037              | -0.011                  |
| Any IPP, ED Or Lab Hyperglycemia                     | 51,597          | 32.4%              | 51,989      | 32.9%              | -0.495              | -0.011                  |
| Frailty Indicators**                                 | 26,193          | 16.5%              | 26,361      | 16.7%              | -0.232              | -0.006                  |
| Pneumococcal Vaccine**                               | 58,550          | 36.8%              | 58,710      | 37.2%              | -0.382              | -0.008                  |
| GLP-1RA Or GIP/GLP-1RA**                             | 4,012           | 2.5%               | 2,411       | 1.5%               | 0.996               | 0.071                   |
| Insulin Initiation**                                 | 3,561           | 2.2%               | 4,298       | 2.7%               | -0.484              | -0.031                  |
| Insulin Or GLP-1RA                                   | 7,347           | 4.6%               | 6,548       | 4.1%               | 0.471               | 0.023                   |
| Influenza Vaccine**                                  | 73,048          | 45.9%              | 72,617      | 46.0%              | -0.076              | -0.002                  |
| Preventive Healthcare**                              | 148,503         | 93.4%              | 147,215     | 93.3%              | 0.106               | 0.004                   |
| Any HbA1c Test**                                     | 74,765          | 47.0%              | 71,924      | 45.6%              | 1.443               | 0.029                   |
| ACEis                                                | 64,408          | 40.5%              | 65,151      | 41.3%              | -0.779              | -0.016                  |
| ARBs                                                 | 38,612          | 24.3%              | 38,749      | 24.6%              | -0.271              | -0.006                  |
| Beta Blockers                                        | 47,841          | 30.1%              | 48,517      | 30.7%              | -0.657              | -0.015                  |
| Calcium Channel Blockers                             | 34,627          | 21.8%              | 35,493      | 22.5%              | -0.715              | -0.017                  |
| Statins                                              | 97,654          | 61.4%              | 98,326      | 62.3%              | -0.893              | -0.018                  |
| Any Diuretics                                        | 53,956          | 33.9%              | 55,762      | 35.3%              | -1.402              | -0.030                  |
| Any NSAID                                            | 46,598          | 29.3%              | 46,933      | 29.7%              | -0.435              | -0.010                  |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                   | 2.4             | 1.4                | 2.5         | 1.4                | -0.052              | -0.036                  |

**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase In Count Of CV Medication Classes From Prior Interval (Binary)** | 11,524          | 7.2%               | 14,150      | 9.0%               | -1.719              | -0.063                  |
| Any ED Visits**                                                           | 17,021          | 10.7%              | 17,958      | 11.4%              | -0.675              | -0.022                  |
| Any IP Visits**                                                           | 6,846           | 4.3%               | 8,501       | 5.4%               | -1.082              | -0.051                  |
| No AV Visits                                                              | 14,561          | 9.2%               | 13,506      | 8.6%               | 0.599               | 0.021                   |
| 1-3 AV Visits**                                                           | 69,205          | 43.5%              | 67,183      | 42.6%              | 0.950               | 0.019                   |
| >3 AV Visits**                                                            | 75,245          | 47.3%              | 77,122      | 48.9%              | -1.549              | -0.032                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 22,687          | 14.3%              | 22,951      | 14.5%              | -0.276              | -0.008                  |
| Nephropathy**                                                             | 20,103          | 12.6%              | 21,208      | 13.4%              | -0.796              | -0.024                  |
| Neuropathy**                                                              | 47,535          | 29.9%              | 47,458      | 30.1%              | -0.179              | -0.004                  |
| Any IPP Or ED Hypoglycemia                                                | 171             | 0.1%               | 211         | 0.1%               | -0.026              | -0.008                  |
| Any IPP, ED Or Lab Hyperglycemia                                          | 43,047          | 27.1%              | 42,589      | 27.0%              | 0.084               | 0.002                   |
| Frailty Indicators**                                                      | 27,654          | 17.4%              | 28,175      | 17.9%              | -0.463              | -0.012                  |
| Pneumococcal Vaccine**                                                    | 61,551          | 38.7%              | 61,683      | 39.1%              | -0.378              | -0.008                  |
| GLP-1RA Or GIP/GLP-1RA**                                                  | 3,339           | 2.1%               | 2,688       | 1.7%               | 0.397               | 0.029                   |
| Insulin Initiation**                                                      | 32,039          | 20.1%              | 28,599      | 18.1%              | 2.027               | 0.052                   |
| Insulin Or GLP-1RA Initiation                                             | 34,383          | 21.6%              | 30,471      | 19.3%              | 2.315               | 0.058                   |
| Influenza Vaccine**                                                       | 72,947          | 45.9%              | 72,398      | 45.9%              | -0.001              | -0.000                  |
| Preventive Healthcare**                                                   | 147,581         | 92.8%              | 146,175     | 92.6%              | 0.185               | 0.007                   |
| Any HbA1c Test**                                                          | 82,947          | 52.2%              | 80,598      | 51.1%              | 1.092               | 0.022                   |
| ACEi                                                                      | 60,046          | 37.8%              | 60,445      | 38.3%              | -0.540              | -0.011                  |
| ARB                                                                       | 36,802          | 23.1%              | 36,846      | 23.3%              | -0.204              | -0.005                  |
| Beta Blockers                                                             | 45,931          | 28.9%              | 46,252      | 29.3%              | -0.423              | -0.009                  |
| Calcium Channel Blockers                                                  | 32,895          | 20.7%              | 33,594      | 21.3%              | -0.600              | -0.015                  |
| Statins                                                                   | 92,449          | 58.1%              | 92,059      | 58.3%              | -0.195              | -0.004                  |
| Any Diuretics                                                             | 50,357          | 31.7%              | 52,284      | 33.1%              | -1.462              | -0.032                  |
| Any NSAID                                                                 | 43,658          | 27.5%              | 42,859      | 27.2%              | 0.297               | 0.007                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.5                | 2.3         | 1.5                | -0.031              | -0.021                  |

**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase In Count Of CV Medication Classes From Prior Interval (Binary)** | 27,400          | 17.2%                     | 26,909      | 17.1%                     | 0.180               | 0.005                   |
| Any ED Visits**                                                           | 15,938          | 10.0%                     | 16,516      | 10.5%                     | -0.443              | -0.015                  |
| Any IP Visits**                                                           | 6,688           | 4.2%                      | 7,201       | 4.6%                      | -0.357              | -0.017                  |
| No AV Visits                                                              | 24,979          | 15.7%                     | 25,556      | 16.2%                     | -0.485              | -0.013                  |
| 1-3 AV Visits**                                                           | 67,366          | 42.4%                     | 65,330      | 41.4%                     | 0.968               | 0.020                   |
| >3 AV Visits**                                                            | 66,666          | 41.9%                     | 66,924      | 42.4%                     | -0.483              | -0.010                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 24,751          | 15.6%                     | 25,126      | 15.9%                     | -0.356              | -0.010                  |
| Nephropathy**                                                             | 23,015          | 14.5%                     | 24,300      | 15.4%                     | -0.924              | -0.026                  |
| Neuropathy**                                                              | 51,525          | 32.4%                     | 51,295      | 32.5%                     | -0.101              | -0.002                  |
| Any IPP Or ED Hypoglycemia                                                | 176             | 0.1%                      | 202         | 0.1%                      | -0.017              | -0.005                  |
| Any IPP, ED Or Lab Hyperglycemia                                          | 38,963          | 24.5%                     | 38,912      | 24.7%                     | -0.154              | -0.004                  |
| Frailty Indicators**                                                      | 29,053          | 18.3%                     | 29,715      | 18.8%                     | -0.558              | -0.015                  |
| Pneumococcal Vaccine**                                                    | 64,491          | 40.6%                     | 64,402      | 40.8%                     | -0.252              | -0.005                  |
| GLP-1RA Or GIP/GLP-1RA**                                                  | 5,298           | 3.3%                      | 3,837       | 2.4%                      | 0.900               | 0.054                   |
| Insulin Initiation**                                                      | 6,886           | 4.3%                      | 7,831       | 5.0%                      | -0.631              | -0.030                  |
| Insulin Or GLP-1RA Initiation                                             | 11,797          | 7.4%                      | 11,332      | 7.2%                      | 0.238               | 0.009                   |
| Influenza Vaccine**                                                       | 72,814          | 45.8%                     | 71,921      | 45.6%                     | 0.217               | 0.004                   |
| Preventive Healthcare**                                                   | 145,704         | 91.6%                     | 144,285     | 91.4%                     | 0.202               | 0.007                   |
| Any HbA1c Test**                                                          | 76,732          | 48.3%                     | 74,266      | 47.1%                     | 1.195               | 0.024                   |
| ACEi                                                                      | 56,677          | 35.6%                     | 56,757      | 36.0%                     | -0.322              | -0.007                  |
| ARB                                                                       | 35,377          | 22.2%                     | 35,267      | 22.3%                     | -0.100              | -0.002                  |
| Beta Blockers                                                             | 44,182          | 27.8%                     | 44,519      | 28.2%                     | -0.425              | -0.010                  |
| Calcium Channel Blockers                                                  | 31,428          | 19.8%                     | 32,284      | 20.5%                     | -0.693              | -0.017                  |
| Statins                                                                   | 88,554          | 55.7%                     | 87,589      | 55.5%                     | 0.188               | 0.004                   |
| Any Diuretics                                                             | 47,755          | 30.0%                     | 49,656      | 31.5%                     | -1.433              | -0.031                  |
| Any NSAID                                                                 | 41,477          | 26.1%                     | 40,482      | 25.7%                     | 0.432               | 0.010                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.5                       | 2.2         | 1.5                       | -0.024              | -0.016                  |



**Table 1b. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase In Count Of CV Medication Classes From Prior Interval (Binary)** | 26,801          | 16.9%   | 26,918      | 17.1%   | -0.202              | -0.005                  |
| Any ED Visits**                                                           | 15,212          | 9.6%    | 15,699      | 9.9%    | -0.382              | -0.013                  |
| Any IP Visits**                                                           | 6,527           | 4.1%    | 7,035       | 4.5%    | -0.353              | -0.018                  |
| No AV Visits                                                              | 32,038          | 20.1%   | 32,633      | 20.7%   | -0.530              | -0.013                  |
| 1-3 AV Visits**                                                           | 63,361          | 39.8%   | 61,689      | 39.1%   | 0.756               | 0.016                   |
| >3 AV Visits**                                                            | 63,612          | 40.0%   | 63,488      | 40.2%   | -0.226              | -0.005                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 34,282          | 21.6%   | 25,354      | 16.1%   | 5.493               | 0.141                   |
| Post-Index Insulin Initiation                                             | 20,015          | 12.6%   | 22,362      | 14.2%   | -1.583              | -0.047                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1c. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

| Patient Characteristics <sup>1</sup>      | Medical Product |                           |               |                           | Covariate Balance   |                         |
|-------------------------------------------|-----------------|---------------------------|---------------|---------------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                           | Sitagliptin   |                           | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent                   | Number        | Percent                   |                     |                         |
| Unique patients                           | 76,097          | 100.0%                    | 488,148       | 100.0%                    |                     |                         |
| <b>Demographic Characteristics</b>        | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b>   | <b>Standard Deviation</b> |                     |                         |
| Mean Age (Years) <sup>*</sup>             | 60.6            | 10.5                      | 65.9          | 11.3                      | -5.365              | -0.493                  |
| Age                                       | <b>Number</b>   | <b>Percent</b>            | <b>Number</b> | <b>Percent</b>            |                     |                         |
| 18-44 years                               | 9,601           | 12.6%                     | 39,543        | 8.1%                      | 4.516               | 0.149                   |
| 45-54 years                               | 14,765          | 19.4%                     | 63,241        | 13.0%                     | 6.448               | 0.176                   |
| 55-64 years                               | 19,562          | 25.7%                     | 96,889        | 19.8%                     | 5.858               | 0.140                   |
| 65-74 years                               | 23,684          | 31.1%                     | 162,682       | 33.3%                     | -2.203              | -0.047                  |
| ≥ 75 years                                | 8,485           | 11.2%                     | 125,793       | 25.8%                     | -14.619             | -0.384                  |
| Sex <sup>*</sup>                          |                 |                           |               |                           |                     |                         |
| Female                                    | 76,097          | 100.0%                    | 488,148       | 100.0%                    | 0.000               | NaN                     |
| Male                                      | 0               | 0.0%                      | 0             | 0.0%                      | NaN                 | NaN                     |
| Race <sup>2</sup>                         |                 |                           |               |                           |                     |                         |
| American Indian or Alaska Native          | 460             | 0.6%                      | 3,037         | 0.6%                      | -0.018              | -0.002                  |
| Asian                                     | 2,265           | 3.0%                      | 23,231        | 4.8%                      | -1.783              | -0.093                  |
| Black or African American                 | 9,299           | 12.2%                     | 73,678        | 15.1%                     | -2.873              | -0.084                  |
| Multi-racial                              | 324             | 0.4%                      | 1,592         | 0.3%                      | 0.100               | 0.016                   |
| Native Hawaiian or Other Pacific Islander | 248             | 0.3%                      | 1,635         | 0.3%                      | -0.009              | -0.002                  |
| Unknown                                   | 22,042          | 29.0%                     | 100,765       | 20.6%                     | 8.323               | 0.194                   |
| White                                     | 41,459          | 54.5%                     | 284,210       | 58.2%                     | -3.740              | -0.075                  |
| Hispanic origin <sup>2</sup>              |                 |                           |               |                           |                     |                         |
| Yes                                       | 5,802           | 7.6%                      | 40,515        | 8.3%                      | -0.675              | -0.025                  |
| No                                        | 51,723          | 68.0%                     | 370,422       | 75.9%                     | -7.913              | -0.177                  |
| Unknown                                   | 18,572          | 24.4%                     | 77,211        | 15.8%                     | 8.589               | 0.216                   |
| Year <sup>*</sup>                         |                 |                           |               |                           |                     |                         |
| 2013                                      | 1,895           | 2.5%                      | 38,003        | 7.8%                      | -5.295              | -0.242                  |
| 2014                                      | 9,370           | 12.3%                     | 50,473        | 10.3%                     | 1.974               | 0.062                   |
| 2015                                      | 17,622          | 23.2%                     | 51,310        | 10.5%                     | 12.646              | 0.343                   |
| 2016                                      | 15,024          | 19.7%                     | 51,300        | 10.5%                     | 9.234               | 0.260                   |
| 2017                                      | 12,985          | 17.1%                     | 62,760        | 12.9%                     | 4.207               | 0.118                   |
| 2018                                      | 6,891           | 9.1%                      | 56,831        | 11.6%                     | -2.587              | -0.085                  |
| 2019+                                     | 12,310          | 16.2%                     | 177,471       | 36.4%                     | -20.179             | -0.471                  |

**Table 1c. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

|                                                                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                    |             |                    |                     |                         |
| Retinopathy*                                                                                         | 8,542           | 11.2%              | 63,043      | 12.9%              | -1.690              | -0.052                  |
| Nephropathy*                                                                                         | 5,537           | 7.3%               | 52,384      | 10.7%              | -3.455              | -0.121                  |
| Neuropathy*                                                                                          | 18,792          | 24.7%              | 125,298     | 25.7%              | -0.973              | -0.022                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 257             | 0.3%               | 3,002       | 0.6%               | -0.277              | -0.040                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 40,709          | 53.5%              | 240,528     | 49.3%              | 4.223               | 0.085                   |
| Hypertension*                                                                                        | 60,892          | 80.0%              | 404,100     | 82.8%              | -2.763              | -0.071                  |
| Dyslipidemia*                                                                                        | 57,514          | 75.6%              | 373,726     | 76.6%              | -0.980              | -0.023                  |
| Coronary Artery Disease*                                                                             | 11,918          | 15.7%              | 93,371      | 19.1%              | -3.466              | -0.092                  |
| Cerebrovascular Disease*                                                                             | 3,292           | 4.3%               | 32,652      | 6.7%               | -2.363              | -0.104                  |
| Peripheral Vascular Disease*                                                                         | 7,490           | 9.8%               | 69,769      | 14.3%              | -4.450              | -0.137                  |
| Congestive Heart Failure*                                                                            | 5,369           | 7.1%               | 50,112      | 10.3%              | -3.210              | -0.114                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 11,344          | 14.9%              | 78,840      | 16.2%              | -1.244              | -0.034                  |
| Depression*                                                                                          | 18,079          | 23.8%              | 115,208     | 23.6%              | 0.157               | 0.004                   |
| Obesity*                                                                                             | 29,191          | 38.4%              | 158,481     | 32.5%              | 5.894               | 0.123                   |
| Cancer (Excluding NMSC)*                                                                             | 11,129          | 14.6%              | 84,975      | 17.4%              | -2.783              | -0.076                  |
| Hepatitis C Infection                                                                                | 604             | 0.8%               | 3,834       | 0.8%               | 0.008               | 0.001                   |
| History of Kidney Stones*                                                                            | 2,225           | 2.9%               | 15,858      | 3.2%               | -0.325              | -0.019                  |
| Sickle Cell Disease                                                                                  | 23              | 0.0%               | 194         | 0.0%               | -0.010              | -0.005                  |
| Smoking*                                                                                             | 12,923          | 17.0%              | 84,189      | 17.2%              | -0.264              | -0.007                  |
| Alcohol Use*                                                                                         | 1,013           | 1.3%               | 6,399       | 1.3%               | 0.020               | 0.002                   |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 50              | 0.1%               | 535         | 0.1%               | -0.044              | -0.015                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                           | 68,606          | 90.2%              | 430,975     | 88.3%              | 1.868               | 0.060                   |
| Sulfonylureas*                                                                                       | 35,332          | 46.4%              | 228,646     | 46.8%              | -0.409              | -0.008                  |
| Thiazolidinediones*                                                                                  | 6,650           | 8.7%               | 32,953      | 6.8%               | 1.988               | 0.074                   |
| Alpha Glucosidase Inhibitor                                                                          | 464             | 0.6%               | 2,443       | 0.5%               | 0.109               | 0.015                   |
| Meglitinides                                                                                         | 1,043           | 1.4%               | 6,660       | 1.4%               | 0.006               | 0.001                   |
|                                                                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.5             | 0.6                | 1.4         | 0.6                | 0.036               | 0.062                   |

Page 35 of 686

**Table 1c. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 6,648           | 8.7%               | 45,243      | 9.3%               | -0.532              | -0.019                  |
| 5-10                                                               | 20,363          | 26.8%              | 123,866     | 25.4%              | 1.385               | 0.032                   |
| 11-15                                                              | 14,015          | 18.4%              | 88,518      | 18.1%              | 0.284               | 0.007                   |
| 16+                                                                | 35,071          | 46.1%              | 230,521     | 47.2%              | -1.136              | -0.023                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.7             | 1.8                | 0.8         | 1.9                | -0.010              | -0.006                  |
| Number of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 50,464          | 66.3%              | 318,336     | 65.2%              | 1.102               | 0.023                   |
| 1                                                                  | 14,004          | 18.4%              | 93,186      | 19.1%              | -0.687              | -0.018                  |
| 2+                                                                 | 11,629          | 15.3%              | 76,626      | 15.7%              | -0.415              | -0.011                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.3         | 0.7                | -0.088              | -0.140                  |
| Number of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 66,783          | 87.8%              | 405,210     | 83.0%              | 4.751               | 0.135                   |
| 1                                                                  | 7,208           | 9.5%               | 59,216      | 12.1%              | -2.659              | -0.086                  |
| 2+                                                                 | 2,106           | 2.8%               | 23,722      | 4.9%               | -2.092              | -0.109                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.2             | 1.5                | 1.5         | 1.7                | -0.292              | -0.183                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 35,318          | 46.4%              | 199,953     | 41.0%              | 5.450               | 0.110                   |
| 1                                                                  | 16,795          | 22.1%              | 98,756      | 20.2%              | 1.840               | 0.045                   |
| 2                                                                  | 11,038          | 14.5%              | 77,111      | 15.8%              | -1.291              | -0.036                  |
| 3+                                                                 | 12,946          | 17.0%              | 112,328     | 23.0%              | -5.999              | -0.150                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.1                | -0.010              | -0.204                  |
| Claims-Based Frailty Index Categories*                             | Number          | Percent            | Number      | Percent            |                     |                         |
| 0.25+                                                              | 3,924           | 5.2%               | 45,181      | 9.3%               | -4.099              | -0.159                  |
| <0.25                                                              | 72,173          | 94.8%              | 442,967     | 90.7%              | 4.099               | 0.159                   |

**Table 1c. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>                                   | 1.3             | 2.0                | 1.8         | 2.5                | -0.513              | -0.229                  |
| Combined Comorbidity Score Categories*                                    | Number          | Percent            | Number      | Percent            |                     |                         |
| <1                                                                        | 31,466          | 41.3%              | 172,038     | 35.2%              | 6.107               | 0.126                   |
| 1                                                                         | 17,953          | 23.6%              | 105,574     | 21.6%              | 1.965               | 0.047                   |
| 2                                                                         | 11,053          | 14.5%              | 70,680      | 14.5%              | 0.046               | 0.001                   |
| 3+                                                                        | 15,625          | 20.5%              | 139,856     | 28.7%              | -8.117              | -0.189                  |
| <b>Post-Index Covariates Assessed Through Day 89</b>                      |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 10,085          | 13.3%              | 73,928      | 15.1%              | -1.892              | -0.054                  |
| Nephropathy**                                                             | 7,446           | 9.8%               | 69,696      | 14.3%              | -4.493              | -0.138                  |
| Neuropathy**                                                              | 21,664          | 28.5%              | 143,436     | 29.4%              | -0.915              | -0.020                  |
| Any IPP or ED Hypoglycemia                                                | 92              | 0.1%               | 899         | 0.2%               | -0.063              | -0.016                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 25,403          | 33.4%              | 153,303     | 31.4%              | 1.977               | 0.042                   |
| Frailty Indicators**                                                      | 13,812          | 18.2%              | 108,531     | 22.2%              | -4.083              | -0.102                  |
| Pneumococcal Vaccine**                                                    | 28,342          | 37.2%              | 210,030     | 43.0%              | -5.781              | -0.118                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,242           | 2.9%               | 8,143       | 1.7%               | 1.278               | 0.085                   |
| Insulin Initiation**                                                      | 1,829           | 2.4%               | 17,676      | 3.6%               | -1.218              | -0.071                  |
| Insulin or GLP-1RA                                                        | 3,941           | 5.2%               | 25,141      | 5.2%               | 0.029               | 0.001                   |
| Influenza Vaccine**                                                       | 35,280          | 46.4%              | 240,933     | 49.4%              | -2.995              | -0.060                  |
| Preventive Healthcare**                                                   | 71,583          | 94.1%              | 456,093     | 93.4%              | 0.635               | 0.026                   |
| Any HbA1c Test**                                                          | 35,801          | 47.0%              | 222,477     | 45.6%              | 1.471               | 0.029                   |
| ACEis                                                                     | 27,613          | 36.3%              | 173,318     | 35.5%              | 0.781               | 0.016                   |
| ARBs                                                                      | 19,896          | 26.1%              | 133,373     | 27.3%              | -1.177              | -0.027                  |
| Beta Blockers                                                             | 21,922          | 28.8%              | 159,517     | 32.7%              | -3.870              | -0.084                  |
| Calcium Channel Blockers                                                  | 16,207          | 21.3%              | 128,584     | 26.3%              | -5.043              | -0.119                  |
| Statins                                                                   | 44,350          | 58.3%              | 299,089     | 61.3%              | -2.989              | -0.061                  |
| Any Diuretics                                                             | 28,161          | 37.0%              | 188,581     | 38.6%              | -1.625              | -0.034                  |
| Any NSAID                                                                 | 24,990          | 32.8%              | 147,154     | 30.1%              | 2.694               | 0.058                   |
| CV Medication Classes (Continuous)                                        | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 5,358           | 7.0%               | 42,492      | 8.7%               | -1.664              | -0.062                  |
| Any ED Visits**                                                           | 9,742           | 12.8%              | 65,292      | 13.4%              | -0.573              | -0.017                  |
| Any IP Visits**                                                           | 3,333           | 4.4%               | 35,572      | 7.3%               | -2.907              | -0.124                  |
| No AV Visits                                                              | 5,743           | 7.5%               | 34,918      | 7.2%               | 0.394               | 0.015                   |

**Table 1c. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

|                                                                            | Medical Product |                    |             |                    | Covariate Balance   |                         |
|----------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                            | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                            | Number          | Percent            | Number      | Percent            |                     |                         |
| 1-3 AV Visits **                                                           | 30,674          | 40.3%              | 187,487     | 38.4%              | 1.901               | 0.039                   |
| >3 AV Visits **                                                            | 39,680          | 52.1%              | 265,743     | 54.4%              | -2.295              | -0.046                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                      |                 |                    |             |                    |                     |                         |
| Retinopathy **                                                             | 11,234          | 14.8%              | 81,913      | 16.8%              | -2.018              | -0.055                  |
| Nephropathy **                                                             | 8,920           | 11.7%              | 81,441      | 16.7%              | -4.962              | -0.142                  |
| Neuropathy **                                                              | 23,799          | 31.3%              | 156,682     | 32.1%              | -0.823              | -0.018                  |
| Any IPP or ED Hypoglycemia                                                 | 88              | 0.1%               | 734         | 0.2%               | -0.035              | -0.010                  |
| Any IPP, ED or Lab Hyperglycemia                                           | 21,330          | 28.0%              | 125,225     | 25.7%              | 2.377               | 0.054                   |
| Frailty Indicators **                                                      | 14,581          | 19.2%              | 114,989     | 23.6%              | -4.395              | -0.107                  |
| Pneumococcal Vaccine **                                                    | 29,819          | 39.2%              | 218,406     | 44.7%              | -5.556              | -0.113                  |
| GLP-1RA or GIP/GLP-1RA **                                                  | 1,890           | 2.5%               | 8,888       | 1.8%               | 0.663               | 0.046                   |
| Insulin Initiation **                                                      | 16,250          | 21.4%              | 61,087      | 12.5%              | 8.840               | 0.237                   |
| Insulin or GLP-1RA Initiation                                              | 17,568          | 23.1%              | 68,111      | 14.0%              | 9.133               | 0.237                   |
| Influenza Vaccine **                                                       | 35,334          | 46.4%              | 240,277     | 49.2%              | -2.789              | -0.056                  |
| Preventive Healthcare **                                                   | 71,085          | 93.4%              | 452,936     | 92.8%              | 0.627               | 0.025                   |
| Any HbA1c Test **                                                          | 39,663          | 52.1%              | 247,905     | 50.8%              | 1.337               | 0.027                   |
| ACEi                                                                       | 25,754          | 33.8%              | 160,701     | 32.9%              | 0.923               | 0.020                   |
| ARB                                                                        | 18,983          | 24.9%              | 126,441     | 25.9%              | -0.956              | -0.022                  |
| Beta Blockers                                                              | 21,060          | 27.7%              | 151,563     | 31.0%              | -3.373              | -0.074                  |
| Calcium Channel Blockers                                                   | 15,400          | 20.2%              | 121,025     | 24.8%              | -4.555              | -0.109                  |
| Statins                                                                    | 42,028          | 55.2%              | 279,912     | 57.3%              | -2.112              | -0.043                  |
| Any Diuretics                                                              | 26,327          | 34.6%              | 175,748     | 36.0%              | -1.406              | -0.029                  |
| Any NSAID                                                                  | 23,518          | 30.9%              | 134,887     | 27.6%              | 3.273               | 0.072                   |
| CV Medication Classes (Continuous)                                         | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                            | 2.3             | 1.5                | 2.4         | 1.5                | -0.082              | -0.056                  |
| Increase in Count of CV Medication Classes from Prior Interval (Binary) ** | Number          | Percent            | Number      | Percent            |                     |                         |
|                                                                            | 13,705          | 18.0%              | 84,860      | 17.4%              | 0.626               | 0.016                   |
| Any ED Visits **                                                           | 9,020           | 11.9%              | 58,335      | 12.0%              | -0.097              | -0.003                  |
| Any IP Visits **                                                           | 3,343           | 4.4%               | 28,190      | 5.8%               | -1.382              | -0.063                  |
| No AV Visits                                                               | 10,619          | 14.0%              | 71,779      | 14.7%              | -0.750              | -0.021                  |
| 1-3 AV Visits **                                                           | 30,401          | 40.0%              | 185,460     | 38.0%              | 1.958               | 0.040                   |
| >3 AV Visits **                                                            | 35,077          | 46.1%              | 230,909     | 47.3%              | -1.208              | -0.024                  |



**Table 1c. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

|                                                                            | Medical Product |                    |             |                    | Covariate Balance   |                         |
|----------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                            | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                            | Number          | Percent            | Number      | Percent            |                     |                         |
| <b>Post-Index Covariates Assessed Through Day 269</b>                      |                 |                    |             |                    |                     |                         |
| Retinopathy **                                                             | 12,256          | 16.1%              | 88,804      | 18.2%              | -2.086              | -0.055                  |
| Nephropathy **                                                             | 10,239          | 13.5%              | 91,665      | 18.8%              | -5.323              | -0.145                  |
| Neuropathy **                                                              | 25,784          | 33.9%              | 168,157     | 34.4%              | -0.565              | -0.012                  |
| Any IPP or ED Hypoglycemia                                                 | 97              | 0.1%               | 702         | 0.1%               | -0.016              | -0.004                  |
| Any IPP, ED or Lab Hyperglycemia                                           | 19,524          | 25.7%              | 113,484     | 23.2%              | 2.409               | 0.056                   |
| Frailty Indicators **                                                      | 15,315          | 20.1%              | 120,695     | 24.7%              | -4.599              | -0.110                  |
| Pneumococcal Vaccine **                                                    | 31,267          | 41.1%              | 225,950     | 46.3%              | -5.199              | -0.105                  |
| GLP-1RA or GIP/GLP-1RA **                                                  | 2,966           | 3.9%               | 12,531      | 2.6%               | 1.331               | 0.075                   |
| Insulin Initiation **                                                      | 3,608           | 4.7%               | 24,372      | 5.0%               | -0.251              | -0.012                  |
| Insulin or GLP-1RA Initiation                                              | 6,352           | 8.3%               | 35,789      | 7.3%               | 1.016               | 0.038                   |
| Influenza Vaccine **                                                       | 35,291          | 46.4%              | 238,514     | 48.9%              | -2.485              | -0.050                  |
| Preventive Healthcare **                                                   | 70,262          | 92.3%              | 446,598     | 91.5%              | 0.844               | 0.031                   |
| Any HbA1c Test **                                                          | 37,160          | 48.8%              | 227,079     | 46.5%              | 2.314               | 0.046                   |
| ACEi                                                                       | 24,298          | 31.9%              | 150,629     | 30.9%              | 1.073               | 0.023                   |
| ARB                                                                        | 18,252          | 24.0%              | 120,814     | 24.7%              | -0.764              | -0.018                  |
| Beta Blockers                                                              | 20,271          | 26.6%              | 145,229     | 29.8%              | -3.113              | -0.069                  |
| Calcium Channel Blockers                                                   | 14,796          | 19.4%              | 115,335     | 23.6%              | -4.183              | -0.102                  |
| Statins                                                                    | 40,366          | 53.0%              | 265,211     | 54.3%              | -1.285              | -0.026                  |
| Any Diuretics                                                              | 24,938          | 32.8%              | 166,391     | 34.1%              | -1.315              | -0.028                  |
| Any NSAID                                                                  | 22,401          | 29.4%              | 126,183     | 25.8%              | 3.588               | 0.080                   |
| CV Medication Classes (Continuous)                                         | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                            | 2.2             | 1.5                | 2.2         | 1.5                | -0.060              | -0.040                  |
|                                                                            | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary) ** | 13,415          | 17.6%              | 83,639      | 17.1%              | 0.495               | 0.013                   |
| Any ED Visits **                                                           | 8,718           | 11.5%              | 55,120      | 11.3%              | 0.165               | 0.005                   |
| Any IP Visits **                                                           | 3,249           | 4.3%               | 26,756      | 5.5%               | -1.212              | -0.056                  |
| No AV Visits                                                               | 13,754          | 18.1%              | 95,360      | 19.5%              | -1.461              | -0.037                  |
| 1-3 AV Visits **                                                           | 28,906          | 38.0%              | 175,747     | 36.0%              | 1.983               | 0.041                   |
| >3 AV Visits **                                                            | 33,437          | 43.9%              | 217,041     | 44.5%              | -0.522              | -0.011                  |

**Table 1c. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 17,616          | 23.1%   | 72,704      | 14.9%   | 8.256               | 0.212                   |
| Post-Index Insulin Initiation                                             | 9,843           | 12.9%   | 78,170      | 16.0%   | -3.079              | -0.088                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GLP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 76,088          | N/A                | 75,637      | N/A                |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 60.6            | 10.5               | 60.6        | 10.5               | -0.062              | -0.006                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 9,598           | 12.6%              | 9,357       | 12.4%              | 0.243               | 0.008                   |
| 45-54 years                               | 14,761          | 19.4%              | 15,054      | 19.9%              | -0.503              | -0.013                  |
| 55-64 years                               | 19,561          | 25.7%              | 19,185      | 25.4%              | 0.344               | 0.008                   |
| 65-74 years                               | 23,684          | 31.1%              | 23,246      | 30.7%              | 0.394               | 0.010                   |
| ≥ 75 years                                | 8,484           | 11.2%              | 8,795       | 11.6%              | -0.478              | -0.016                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 76,088          | 100.0%             | 75,637      | 100.0%             | 0.000               | NaN                     |
| Male                                      | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 460             | 0.6%               | 502         | 0.7%               | -0.059              | -0.007                  |
| Asian                                     | 2,264           | 3.0%               | 2,804       | 3.7%               | -0.731              | -0.041                  |
| Black or African American                 | 9,298           | 12.2%              | 11,165      | 14.8%              | -2.541              | -0.075                  |
| Multi-racial                              | 324             | 0.4%               | 312         | 0.4%               | 0.013               | 0.002                   |
| Native Hawaiian or Other Pacific Islander | 247             | 0.3%               | 248         | 0.3%               | -0.004              | -0.001                  |
| Unknown                                   | 22,039          | 29.0%              | 22,427      | 29.7%              | -0.686              | -0.020                  |
| White                                     | 41,456          | 54.5%              | 38,179      | 50.5%              | 4.008               | 0.092                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 5,802           | 7.6%               | 6,299       | 8.3%               | -0.702              | -0.027                  |
| No                                        | 51,718          | 68.0%              | 50,971      | 67.4%              | 0.583               | 0.018                   |
| Unknown                                   | 18,568          | 24.4%              | 18,368      | 24.3%              | 0.120               | 0.005                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 1,895           | 2.5%               | 1,883       | 2.5%               | 0.001               | 0.000                   |
| 2014                                      | 9,370           | 12.3%              | 9,212       | 12.2%              | 0.136               | 0.004                   |
| 2015                                      | 17,618          | 23.2%              | 17,228      | 22.8%              | 0.378               | 0.009                   |
| 2016                                      | 15,020          | 19.7%              | 14,958      | 19.8%              | -0.036              | -0.001                  |
| 2017                                      | 12,985          | 17.1%              | 13,037      | 17.2%              | -0.171              | -0.005                  |
| 2018                                      | 6,891           | 9.1%               | 6,933       | 9.2%               | -0.110              | -0.004                  |
| 2019+                                     | 12,309          | 16.2%              | 12,387      | 16.4%              | -0.199              | -0.006                  |

**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

|                                                                                                      | Medical Product |                           |             |                           | Covariate Balance          |                                |
|------------------------------------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|----------------------------|--------------------------------|
|                                                                                                      | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference        | Standardized Difference        |
|                                                                                                      | Number          | Percent                   | Number      | Percent                   |                            |                                |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                           |             |                           |                            |                                |
| Retinopathy*                                                                                         | 8,542           | 11.2%                     | 8,494       | 11.2%                     | -0.003                     | -0.000                         |
| Nephropathy*                                                                                         | 5,537           | 7.3%                      | 5,547       | 7.3%                      | -0.057                     | -0.002                         |
| Neuropathy*                                                                                          | 18,788          | 24.7%                     | 18,687      | 24.7%                     | -0.014                     | -0.000                         |
| Any IPP or ED Hypoglycemia Visit                                                                     | 257             | 0.3%                      | 338         | 0.4%                      | -0.108                     | -0.017                         |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 40,701          | 53.5%                     | 40,407      | 53.4%                     | 0.071                      | 0.001                          |
| Hypertension*                                                                                        | 60,885          | 80.0%                     | 60,469      | 79.9%                     | 0.073                      | 0.002                          |
| Dyslipidemia*                                                                                        | 57,506          | 75.6%                     | 56,972      | 75.3%                     | 0.256                      | 0.006                          |
| Coronary Artery Disease*                                                                             | 11,918          | 15.7%                     | 11,886      | 15.7%                     | -0.052                     | -0.001                         |
| Cerebrovascular Disease*                                                                             | 3,292           | 4.3%                      | 3,294       | 4.4%                      | -0.028                     | -0.001                         |
| Peripheral Vascular Disease*                                                                         | 7,490           | 9.8%                      | 7,456       | 9.9%                      | -0.013                     | -0.000                         |
| Congestive Heart Failure*                                                                            | 5,369           | 7.1%                      | 5,393       | 7.1%                      | -0.074                     | -0.003                         |
| Chronic Obstructive Pulmonary Disease*                                                               | 11,342          | 14.9%                     | 11,351      | 15.0%                     | -0.101                     | -0.003                         |
| Depression*                                                                                          | 18,076          | 23.8%                     | 17,977      | 23.8%                     | -0.010                     | -0.000                         |
| Obesity*                                                                                             | 29,184          | 38.4%                     | 28,948      | 38.3%                     | 0.084                      | 0.002                          |
| Cancer (Excluding NMSC)*                                                                             | 11,126          | 14.6%                     | 11,097      | 14.7%                     | -0.049                     | -0.001                         |
| Hepatitis C Infection                                                                                | 604             | 0.8%                      | 645         | 0.9%                      | -0.058                     | -0.006                         |
| History of Kidney Stones*                                                                            | 2,225           | 2.9%                      | 2,214       | 2.9%                      | -0.003                     | -0.000                         |
| Sickle Cell Disease                                                                                  | 23              | 0.0%                      | 30          | 0.0%                      | -0.010                     | -0.005                         |
| Smoking*                                                                                             | 12,921          | 17.0%                     | 12,896      | 17.1%                     | -0.068                     | -0.002                         |
| Alcohol Use*                                                                                         | 1,013           | 1.3%                      | 1,013       | 1.3%                      | -0.008                     | -0.001                         |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%                      | 0           | 0.0%                      | NaN                        | NaN                            |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%                      | 0           | 0.0%                      | NaN                        | NaN                            |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 50              | 0.1%                      | 62          | 0.1%                      | -0.016                     | -0.006                         |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                           |             |                           |                            |                                |
| Metformin*                                                                                           | 68,598          | 90.2%                     | 68,160      | 90.1%                     | 0.042                      | 0.001                          |
| Sulfonylureas*                                                                                       | 35,329          | 46.4%                     | 35,314      | 46.7%                     | -0.257                     | -0.005                         |
| Thiazolidinediones*                                                                                  | 6,643           | 8.7%                      | 6,624       | 8.8%                      | -0.027                     | -0.001                         |
| Alpha Glucosidase Inhibitor                                                                          | 464             | 0.6%                      | 385         | 0.5%                      | 0.101                      | 0.014                          |
| Meglitinides                                                                                         | 1,043           | 1.4%                      | 886         | 1.2%                      | 0.199                      | 0.018                          |
|                                                                                                      | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> | <b>Absolute Difference</b> | <b>Standardized Difference</b> |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.5             | 0.6                       | 1.5         | 0.6                       | 0.001                      | 0.001                          |

**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 43,649          | 57.4%              | 43,304      | 57.3%              | 0.114               | 0.002                   |
| 2                                                                                             | 28,982          | 38.1%              | 29,013      | 38.4%              | -0.267              | -0.006                  |
| 3                                                                                             | 3,365           | 4.4%               | 3,243       | 4.3%               | 0.135               | 0.007                   |
| 4+                                                                                            | 91              | 0.1%               | 77          | 0.1%               | 0.017               | 0.005                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 19,032          | 25.0%              | 17,824      | 23.6%              | 1.449               | 0.034                   |
| Short- and Rapid-Acting Insulin                                                               | 9,419           | 12.4%              | 7,027       | 9.3%               | 3.088               | 0.100                   |
| Combination Insulins                                                                          | 2,618           | 3.4%               | 2,216       | 2.9%               | 0.511               | 0.029                   |
| Any Insulin*                                                                                  | 21,780          | 28.6%              | 21,304      | 28.2%              | 0.458               | 0.010                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 34,133          | 44.9%              | 33,917      | 44.8%              | 0.019               | 0.000                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 22,417          | 29.5%              | 22,288      | 29.5%              | -0.004              | -0.000                  |
| Beta Blockers*                                                                                | 25,604          | 33.7%              | 25,492      | 33.7%              | -0.053              | -0.001                  |
| Calcium Channel Blockers*                                                                     | 19,519          | 25.7%              | 19,445      | 25.7%              | -0.055              | -0.001                  |
| Statins*                                                                                      | 51,815          | 68.1%              | 51,448      | 68.0%              | 0.079               | 0.002                   |
| Loop Diuretics                                                                                | 10,948          | 14.4%              | 10,392      | 13.7%              | 0.649               | 0.019                   |
| Other Diuretics                                                                               | 28,648          | 37.7%              | 28,589      | 37.8%              | -0.147              | -0.003                  |
| Any Diuretic*                                                                                 | 35,354          | 46.5%              | 35,071      | 46.4%              | 0.098               | 0.002                   |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 42,001          | 55.2%              | 41,717      | 55.2%              | 0.047               | 0.001                   |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | 3.0             | 1.4                | 3.0         | 1.4                | 0.001               | 0.001                   |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Influenza Vaccine*                                                                            | 34,745          | 45.7%              | 34,641      | 45.8%              | -0.135              | -0.003                  |
| Pneumococcal Vaccine (Ever)*                                                                  | 26,739          | 35.1%              | 26,693      | 35.3%              | -0.148              | -0.003                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                    |             |                    |                     |                         |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | 19.0            | 16.8               | 19.1        | 17.5               | -0.025              | -0.001                  |

**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 6,648           | 8.7%               | 6,603       | 8.7%               | 0.008               | 0.000                   |
| 5-10                                                               | 20,362          | 26.8%              | 20,226      | 26.7%              | 0.020               | 0.000                   |
| 11-15                                                              | 14,013          | 18.4%              | 13,890      | 18.4%              | 0.052               | 0.001                   |
| 16+                                                                | 35,065          | 46.1%              | 34,918      | 46.2%              | -0.080              | -0.002                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.7             | 1.8                | 0.8         | 1.9                | -0.009              | -0.005                  |
| Number of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 50,456          | 66.3%              | 50,101      | 66.2%              | 0.074               | 0.002                   |
| 1                                                                  | 14,004          | 18.4%              | 13,918      | 18.4%              | 0.004               | 0.000                   |
| 2+                                                                 | 11,628          | 15.3%              | 11,618      | 15.4%              | -0.078              | -0.002                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.2         | 0.6                | -0.007              | -0.013                  |
| Number of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 66,775          | 87.8%              | 66,339      | 87.7%              | 0.053               | 0.002                   |
| 1                                                                  | 7,208           | 9.5%               | 7,184       | 9.5%               | -0.025              | -0.001                  |
| 2+                                                                 | 2,105           | 2.8%               | 2,114       | 2.8%               | -0.028              | -0.002                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.2             | 1.5                | 1.2         | 1.5                | -0.008              | -0.005                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 35,314          | 46.4%              | 35,080      | 46.4%              | 0.034               | 0.001                   |
| 1                                                                  | 16,791          | 22.1%              | 16,647      | 22.0%              | 0.058               | 0.001                   |
| 2                                                                  | 11,037          | 14.5%              | 10,974      | 14.5%              | -0.004              | -0.000                  |
| 3+                                                                 | 12,946          | 17.0%              | 12,936      | 17.1%              | -0.088              | -0.002                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.0                | -0.001              | -0.023                  |

**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 3,924           | 5.2%               | 3,930       | 5.2%               | -0.038              | -0.002                  |
| <0.25                                                | 72,164          | 94.8%              | 71,708      | 94.8%              | 0.038               | 0.002                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.3             | 2.0                | 1.3         | 2.1                | -0.036              | -0.018                  |
| Combined Comorbidity Score Categories*               |                 |                    |             |                    |                     |                         |
| <1                                                   | 31,463          | 41.4%              | 31,142      | 41.2%              | 0.178               | 0.004                   |
| 1                                                    | 17,950          | 23.6%              | 17,846      | 23.6%              | -0.004              | -0.000                  |
| 2                                                    | 11,052          | 14.5%              | 11,019      | 14.6%              | -0.043              | -0.001                  |
| 3+                                                   | 15,623          | 20.5%              | 15,630      | 20.7%              | -0.131              | -0.003                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 10,085          | 13.3%              | 10,112      | 13.4%              | -0.114              | -0.003                  |
| Nephropathy **                                       | 7,446           | 9.8%               | 7,808       | 10.3%              | -0.537              | -0.018                  |
| Neuropathy **                                        | 21,660          | 28.5%              | 21,626      | 28.6%              | -0.124              | -0.003                  |
| Any IPP or ED Hypoglycemia                           | 92              | 0.1%               | 119         | 0.2%               | -0.036              | -0.010                  |
| Any IPP, ED or Lab Hyperglycemia                     | 25,397          | 33.4%              | 25,528      | 33.8%              | -0.372              | -0.008                  |
| Frailty Indicators **                                | 13,812          | 18.2%              | 13,870      | 18.3%              | -0.185              | -0.005                  |
| Pneumococcal Vaccine **                              | 28,339          | 37.2%              | 28,528      | 37.7%              | -0.472              | -0.010                  |
| GLP-1RA or GIP/GLP-1RA **                            | 2,241           | 2.9%               | 1,338       | 1.8%               | 1.176               | 0.078                   |
| Insulin Initiation **                                | 1,829           | 2.4%               | 2,227       | 2.9%               | -0.541              | -0.034                  |
| Insulin or GLP-1RA                                   | 3,940           | 5.2%               | 3,477       | 4.6%               | 0.582               | 0.027                   |
| Influenza Vaccine **                                 | 35,276          | 46.4%              | 35,208      | 46.5%              | -0.186              | -0.004                  |
| Preventive Healthcare **                             | 71,575          | 94.1%              | 71,029      | 93.9%              | 0.162               | 0.007                   |
| Any HbA1c Test **                                    | 35,798          | 47.0%              | 34,701      | 45.9%              | 1.170               | 0.024                   |
| ACEis                                                | 27,610          | 36.3%              | 28,002      | 37.0%              | -0.734              | -0.015                  |
| ARBs                                                 | 19,892          | 26.1%              | 20,009      | 26.5%              | -0.311              | -0.007                  |
| Beta Blockers                                        | 21,919          | 28.8%              | 22,264      | 29.4%              | -0.628              | -0.014                  |
| Calcium Channel Blockers                             | 16,204          | 21.3%              | 16,664      | 22.0%              | -0.735              | -0.018                  |
| Statins                                              | 44,345          | 58.3%              | 44,900      | 59.4%              | -1.081              | -0.022                  |
| Any Diuretics                                        | 28,159          | 37.0%              | 29,034      | 38.4%              | -1.378              | -0.029                  |
| Any NSAID                                            | 24,984          | 32.8%              | 25,115      | 33.2%              | -0.368              | -0.008                  |



**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.4             | 1.4                | 2.5         | 1.4                | -0.052              | -0.037                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 5,357           | 7.0%               | 6,670       | 8.8%               | -1.777              | -0.066                  |
| Any ED Visits**                                                           | 9,740           | 12.8%              | 10,062      | 13.3%              | -0.502              | -0.015                  |
| Any IP Visits**                                                           | 3,333           | 4.4%               | 4,138       | 5.5%               | -1.090              | -0.051                  |
| No AV Visits                                                              | 5,743           | 7.5%               | 5,414       | 7.2%               | 0.390               | 0.015                   |
| 1-3 AV Visits**                                                           | 30,671          | 40.3%              | 29,885      | 39.5%              | 0.799               | 0.016                   |
| >3 AV Visits**                                                            | 39,674          | 52.1%              | 40,338      | 53.3%              | -1.189              | -0.024                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 11,234          | 14.8%              | 11,305      | 14.9%              | -0.182              | -0.005                  |
| Nephropathy**                                                             | 8,920           | 11.7%              | 9,418       | 12.5%              | -0.728              | -0.023                  |
| Neuropathy**                                                              | 23,794          | 31.3%              | 23,827      | 31.5%              | -0.230              | -0.005                  |
| Any IPP or ED Hypoglycemia                                                | 88              | 0.1%               | 110         | 0.1%               | -0.030              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 21,325          | 28.0%              | 21,060      | 27.8%              | 0.183               | 0.004                   |
| Frailty Indicators**                                                      | 14,581          | 19.2%              | 14,772      | 19.5%              | -0.367              | -0.009                  |
| Pneumococcal Vaccine**                                                    | 29,816          | 39.2%              | 29,987      | 39.6%              | -0.459              | -0.010                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,889           | 2.5%               | 1,468       | 1.9%               | 0.542               | 0.037                   |
| Insulin Initiation**                                                      | 16,245          | 21.4%              | 14,672      | 19.4%              | 1.953               | 0.049                   |
| Insulin or GLP-1RA Initiation                                             | 17,562          | 23.1%              | 15,699      | 20.8%              | 2.326               | 0.056                   |
| Influenza Vaccine**                                                       | 35,332          | 46.4%              | 35,145      | 46.5%              | -0.029              | -0.001                  |
| Preventive Healthcare**                                                   | 71,077          | 93.4%              | 70,563      | 93.3%              | 0.124               | 0.005                   |
| Any HbA1c Test**                                                          | 39,657          | 52.1%              | 38,689      | 51.2%              | 0.970               | 0.020                   |
| ACEi                                                                      | 25,751          | 33.8%              | 25,974      | 34.3%              | -0.496              | -0.010                  |
| ARB                                                                       | 18,979          | 24.9%              | 19,070      | 25.2%              | -0.269              | -0.006                  |
| Beta Blockers                                                             | 21,057          | 27.7%              | 21,282      | 28.1%              | -0.463              | -0.011                  |
| Calcium Channel Blockers                                                  | 15,397          | 20.2%              | 15,806      | 20.9%              | -0.661              | -0.017                  |
| Statins                                                                   | 42,023          | 55.2%              | 42,048      | 55.6%              | -0.363              | -0.007                  |
| Any Diuretics                                                             | 26,325          | 34.6%              | 27,156      | 35.9%              | -1.304              | -0.028                  |
| Any NSAID                                                                 | 23,514          | 30.9%              | 23,198      | 30.7%              | 0.233               | 0.005                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.5                | 2.3         | 1.5                | -0.033              | -0.023                  |

**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 13,705          | 18.0%                     | 13,453      | 17.8%                     | 0.225               | 0.006                   |
| Any ED Visits**                                                           | 9,019           | 11.9%                     | 9,300       | 12.3%                     | -0.443              | -0.014                  |
| Any IP Visits**                                                           | 3,343           | 4.4%                      | 3,555       | 4.7%                      | -0.307              | -0.015                  |
| No AV Visits                                                              | 10,619          | 14.0%                     | 10,890      | 14.4%                     | -0.442              | -0.013                  |
| 1-3 AV Visits**                                                           | 30,396          | 39.9%                     | 29,505      | 39.0%                     | 0.941               | 0.019                   |
| >3 AV Visits**                                                            | 35,073          | 46.1%                     | 35,243      | 46.6%                     | -0.499              | -0.010                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 12,256          | 16.1%                     | 12,356      | 16.3%                     | -0.228              | -0.006                  |
| Nephropathy**                                                             | 10,239          | 13.5%                     | 10,884      | 14.4%                     | -0.933              | -0.027                  |
| Neuropathy**                                                              | 25,779          | 33.9%                     | 25,768      | 34.1%                     | -0.187              | -0.004                  |
| Any IPP or ED Hypoglycemia                                                | 97              | 0.1%                      | 110         | 0.1%                      | -0.018              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 19,521          | 25.7%                     | 19,187      | 25.4%                     | 0.289               | 0.007                   |
| Frailty Indicators**                                                      | 15,315          | 20.1%                     | 15,568      | 20.6%                     | -0.454              | -0.011                  |
| Pneumococcal Vaccine**                                                    | 31,264          | 41.1%                     | 31,301      | 41.4%                     | -0.293              | -0.006                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,964           | 3.9%                      | 2,103       | 2.8%                      | 1.115               | 0.062                   |
| Insulin Initiation**                                                      | 3,608           | 4.7%                      | 4,065       | 5.4%                      | -0.632              | -0.029                  |
| Insulin or GLP-1RA Initiation                                             | 6,350           | 8.3%                      | 5,980       | 7.9%                      | 0.440               | 0.016                   |
| Influenza Vaccine**                                                       | 35,290          | 46.4%                     | 34,907      | 46.2%                     | 0.230               | 0.005                   |
| Preventive Healthcare**                                                   | 70,255          | 92.3%                     | 69,681      | 92.1%                     | 0.208               | 0.008                   |
| Any HbA1c Test**                                                          | 37,155          | 48.8%                     | 35,880      | 47.4%                     | 1.395               | 0.028                   |
| ACEi                                                                      | 24,296          | 31.9%                     | 24,399      | 32.3%                     | -0.326              | -0.007                  |
| ARB                                                                       | 18,248          | 24.0%                     | 18,279      | 24.2%                     | -0.184              | -0.004                  |
| Beta Blockers                                                             | 20,268          | 26.6%                     | 20,488      | 27.1%                     | -0.449              | -0.010                  |
| Calcium Channel Blockers                                                  | 14,793          | 19.4%                     | 15,204      | 20.1%                     | -0.660              | -0.017                  |
| Statins                                                                   | 40,362          | 53.0%                     | 40,028      | 52.9%                     | 0.126               | 0.003                   |
| Any Diuretics                                                             | 24,936          | 32.8%                     | 25,782      | 34.1%                     | -1.314              | -0.028                  |
| Any NSAID                                                                 | 22,399          | 29.4%                     | 21,832      | 28.9%                     | 0.574               | 0.013                   |
|                                                                           |                 |                           |             |                           |                     |                         |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.5                       | 2.2         | 1.5                       | -0.022              | -0.015                  |

**Table 1d. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Female**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 13,414          | 17.6%   | 13,432      | 17.8%   | -0.129              | -0.003                  |
| Any ED Visits**                                                           | 8,717           | 11.5%   | 8,860       | 11.7%   | -0.257              | -0.008                  |
| Any IP Visits**                                                           | 3,249           | 4.3%    | 3,511       | 4.6%    | -0.372              | -0.018                  |
| No AV Visits                                                              | 13,753          | 18.1%   | 14,325      | 18.9%   | -0.864              | -0.023                  |
| 1-3 AV Visits**                                                           | 28,901          | 38.0%   | 27,875      | 36.9%   | 1.130               | 0.023                   |
| >3 AV Visits**                                                            | 33,434          | 43.9%   | 33,437      | 44.2%   | -0.266              | -0.005                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 17,611          | 23.1%   | 13,450      | 17.8%   | 5.363               | 0.133                   |
| Post-Index Insulin Initiation                                             | 9,843           | 12.9%   | 11,172      | 14.8%   | -1.834              | -0.053                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\* Covariate included in the treatment and censoring propensity score logistic regression models.

\*\* Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup> Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup> Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup> Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup> Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup> Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Unique patients                           | 82,914          | 100.0%             | 432,864     | 100.0%             |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 60.8            | 10.1               | 64.5        | 10.9               | -3.701              | -0.351                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 9,195           | 11.1%              | 35,362      | 8.2%               | 2.920               | 0.099                   |
| 45-54 years                               | 17,226          | 20.8%              | 65,899      | 15.2%              | 5.552               | 0.145                   |
| 55-64 years                               | 21,446          | 25.9%              | 96,150      | 22.2%              | 3.653               | 0.086                   |
| 65-74 years                               | 26,058          | 31.4%              | 144,753     | 33.4%              | -2.013              | -0.043                  |
| ≥ 75 years                                | 8,989           | 10.8%              | 90,700      | 21.0%              | -10.112             | -0.279                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Male                                      | 82,914          | 100.0%             | 432,864     | 100.0%             | 0.000               | NaN                     |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 381             | 0.5%               | 2,086       | 0.5%               | -0.022              | -0.003                  |
| Asian                                     | 2,089           | 2.5%               | 19,778      | 4.6%               | -2.050              | -0.111                  |
| Black or African American                 | 5,676           | 6.8%               | 41,956      | 9.7%               | -2.847              | -0.104                  |
| Multi-racial                              | 434             | 0.5%               | 1,894       | 0.4%               | 0.086               | 0.012                   |
| Native Hawaiian or Other Pacific Islander | 301             | 0.4%               | 1,478       | 0.3%               | 0.022               | 0.004                   |
| Unknown                                   | 27,550          | 33.2%              | 106,288     | 24.6%              | 8.673               | 0.192                   |
| White                                     | 46,483          | 56.1%              | 259,384     | 59.9%              | -3.861              | -0.078                  |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 4,166           | 5.0%               | 29,773      | 6.9%               | -1.854              | -0.078                  |
| No                                        | 52,185          | 62.9%              | 308,523     | 71.3%              | -8.336              | -0.178                  |
| Unknown                                   | 26,563          | 32.0%              | 94,568      | 21.8%              | 10.190              | 0.231                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 2,136           | 2.6%               | 33,241      | 7.7%               | -5.103              | -0.233                  |
| 2014                                      | 10,408          | 12.6%              | 46,721      | 10.8%              | 1.759               | 0.055                   |
| 2015                                      | 19,173          | 23.1%              | 46,575      | 10.8%              | 12.364              | 0.334                   |
| 2016                                      | 16,224          | 19.6%              | 46,791      | 10.8%              | 8.758               | 0.246                   |
| 2017                                      | 13,130          | 15.8%              | 55,490      | 12.8%              | 3.016               | 0.086                   |
| 2018                                      | 7,638           | 9.2%               | 50,248      | 11.6%              | -2.396              | -0.079                  |
| 2019+                                     | 14,205          | 17.1%              | 153,798     | 35.5%              | -18.398             | -0.427                  |

**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

|                                                                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                    |             |                    |                     |                         |
| Retinopathy*                                                                                         | 8,779           | 10.6%              | 51,583      | 11.9%              | -1.329              | -0.042                  |
| Nephropathy*                                                                                         | 7,190           | 8.7%               | 51,843      | 12.0%              | -3.305              | -0.109                  |
| Neuropathy*                                                                                          | 18,775          | 22.6%              | 103,070     | 23.8%              | -1.167              | -0.028                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 201             | 0.2%               | 1,908       | 0.4%               | -0.198              | -0.034                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 43,820          | 52.8%              | 213,629     | 49.4%              | 3.497               | 0.070                   |
| Hypertension*                                                                                        | 68,015          | 82.0%              | 358,112     | 82.7%              | -0.700              | -0.018                  |
| Dyslipidemia*                                                                                        | 66,250          | 79.9%              | 343,553     | 79.4%              | 0.535               | 0.013                   |
| Coronary Artery Disease*                                                                             | 20,207          | 24.4%              | 119,434     | 27.6%              | -3.221              | -0.073                  |
| Cerebrovascular Disease*                                                                             | 3,373           | 4.1%               | 27,297      | 6.3%               | -2.238              | -0.101                  |
| Peripheral Vascular Disease*                                                                         | 8,957           | 10.8%              | 64,145      | 14.8%              | -4.016              | -0.120                  |
| Congestive Heart Failure*                                                                            | 6,591           | 7.9%               | 45,009      | 10.4%              | -2.449              | -0.085                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 10,560          | 12.7%              | 63,638      | 14.7%              | -1.966              | -0.057                  |
| Depression*                                                                                          | 10,536          | 12.7%              | 59,805      | 13.8%              | -1.109              | -0.033                  |
| Obesity*                                                                                             | 27,178          | 32.8%              | 119,945     | 27.7%              | 5.069               | 0.111                   |
| Cancer (Excluding NMSC)*                                                                             | 11,921          | 14.4%              | 79,300      | 18.3%              | -3.942              | -0.107                  |
| Hepatitis C Infection                                                                                | 947             | 1.1%               | 5,480       | 1.3%               | -0.124              | -0.011                  |
| History of Kidney Stones*                                                                            | 3,285           | 4.0%               | 20,342      | 4.7%               | -0.737              | -0.036                  |
| Sickle Cell Disease                                                                                  | 18              | 0.0%               | 109         | 0.0%               | -0.003              | -0.002                  |
| Smoking*                                                                                             | 16,354          | 19.7%              | 97,260      | 22.5%              | -2.745              | -0.067                  |
| Alcohol Use*                                                                                         | 2,317           | 2.8%               | 14,797      | 3.4%               | -0.624              | -0.036                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 78              | 0.1%               | 664         | 0.2%               | -0.059              | -0.017                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                           | 76,260          | 92.0%              | 391,569     | 90.5%              | 1.515               | 0.054                   |
| Sulfonylureas*                                                                                       | 41,177          | 49.7%              | 209,043     | 48.3%              | 1.369               | 0.027                   |
| Thiazolidinediones*                                                                                  | 9,956           | 12.0%              | 34,916      | 8.1%               | 3.941               | 0.131                   |
| Alpha Glucosidase Inhibitor                                                                          | 485             | 0.6%               | 2,167       | 0.5%               | 0.084               | 0.011                   |
| Meglitinides                                                                                         | 1,027           | 1.2%               | 5,096       | 1.2%               | 0.061               | 0.006                   |
|                                                                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.6             | 0.6                | 1.5         | 0.6                | 0.070               | 0.116                   |

**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 42,603          | 51.4%              | 242,275     | 56.0%              | -4.588              | -0.092                  |
| 2                                                                                             | 34,771          | 41.9%              | 171,696     | 39.7%              | 2.271               | 0.046                   |
| 3                                                                                             | 5,401           | 6.5%               | 18,452      | 4.3%               | 2.251               | 0.100                   |
| 4+                                                                                            | 139             | 0.2%               | 441         | 0.1%               | 0.066               | 0.018                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 18,893          | 22.8%              | 53,607      | 12.4%              | 10.402              | 0.276                   |
| Short- and Rapid-Acting Insulin                                                               | 8,631           | 10.4%              | 21,406      | 4.9%               | 5.464               | 0.206                   |
| Combination Insulins                                                                          | 2,562           | 3.1%               | 5,878       | 1.4%               | 1.732               | 0.118                   |
| Any Insulin*                                                                                  | 21,682          | 26.1%              | 66,412      | 15.3%              | 10.808              | 0.269                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 44,394          | 53.5%              | 221,991     | 51.3%              | 2.258               | 0.045                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 20,971          | 25.3%              | 108,855     | 25.1%              | 0.145               | 0.003                   |
| Beta Blockers*                                                                                | 29,819          | 36.0%              | 163,136     | 37.7%              | -1.724              | -0.036                  |
| Calcium Channel Blockers*                                                                     | 21,637          | 26.1%              | 122,635     | 28.3%              | -2.235              | -0.050                  |
| Statins*                                                                                      | 60,692          | 73.2%              | 319,592     | 73.8%              | -0.633              | -0.014                  |
| Loop Diuretics                                                                                | 9,545           | 11.5%              | 53,295      | 12.3%              | -0.800              | -0.025                  |
| Other Diuretics                                                                               | 25,952          | 31.3%              | 130,325     | 30.1%              | 1.192               | 0.026                   |
| Any Diuretic*                                                                                 | 31,841          | 38.4%              | 163,558     | 37.8%              | 0.617               | 0.013                   |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 37,900          | 45.7%              | 190,062     | 43.9%              | 1.802               | 0.036                   |
|                                                                                               |                 |                    |             |                    |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 3.0             | 1.4                | 3.0         | 1.4                | 0.002               | 0.002                   |
|                                                                                               |                 |                    |             |                    |                     |                         |
| Influenza Vaccine*                                                                            | Number          | Percent            | Number      | Percent            |                     |                         |
|                                                                                               | 37,003          | 44.6%              | 203,641     | 47.0%              | -2.417              | -0.049                  |
| Pneumococcal Vaccine (Ever)*                                                                  | 28,326          | 34.2%              | 168,093     | 38.8%              | -4.670              | -0.097                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                    |             |                    |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 16.0            | 15.9               | 17.2        | 17.6               | -1.174              | -0.070                  |

**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 12,321          | 14.9%              | 62,602      | 14.5%              | 0.398               | 0.011                   |
| 5-10                                                               | 26,279          | 31.7%              | 126,773     | 29.3%              | 2.407               | 0.052                   |
| 11-15                                                              | 14,521          | 17.5%              | 74,037      | 17.1%              | 0.409               | 0.011                   |
| 16+                                                                | 29,793          | 35.9%              | 169,452     | 39.1%              | -3.214              | -0.066                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.5             | 1.5                | 0.6         | 1.7                | -0.075              | -0.047                  |
| Number of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 61,644          | 74.3%              | 310,776     | 71.8%              | 2.552               | 0.058                   |
| 1                                                                  | 12,925          | 15.6%              | 72,257      | 16.7%              | -1.104              | -0.030                  |
| 2+                                                                 | 8,345           | 10.1%              | 49,831      | 11.5%              | -1.447              | -0.047                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.2         | 0.7                | -0.086              | -0.134                  |
| Number of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 73,637          | 88.8%              | 364,404     | 84.2%              | 4.627               | 0.136                   |
| 1                                                                  | 7,147           | 8.6%               | 48,820      | 11.3%              | -2.659              | -0.089                  |
| 2+                                                                 | 2,130           | 2.6%               | 19,640      | 4.5%               | -1.968              | -0.106                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.3             | 1.6                | 1.6         | 1.8                | -0.264              | -0.159                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 35,432          | 42.7%              | 166,066     | 38.4%              | 4.369               | 0.089                   |
| 1                                                                  | 17,443          | 21.0%              | 84,018      | 19.4%              | 1.628               | 0.041                   |
| 2                                                                  | 13,340          | 16.1%              | 72,447      | 16.7%              | -0.648              | -0.017                  |
| 3+                                                                 | 16,699          | 20.1%              | 110,333     | 25.5%              | -5.349              | -0.128                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.1             | 0.0                | 0.2         | 0.0                | -0.007              | -0.149                  |

**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 2,493           | 3.0%               | 24,299      | 5.6%               | -2.607              | -0.129                  |
| <0.25                                                | 80,421          | 97.0%              | 408,565     | 94.4%              | 2.607               | 0.129                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.1             | 2.0                | 1.7         | 2.4                | -0.517              | -0.233                  |
| Combined Comorbidity Score Categories *              | Number          | Percent            | Number      | Percent            |                     |                         |
| <1                                                   | 39,203          | 47.3%              | 172,298     | 39.8%              | 7.477               | 0.151                   |
| 1                                                    | 17,906          | 21.6%              | 89,798      | 20.7%              | 0.851               | 0.021                   |
| 2                                                    | 10,161          | 12.3%              | 56,154      | 13.0%              | -0.718              | -0.022                  |
| 3+                                                   | 15,644          | 18.9%              | 114,614     | 26.5%              | -7.610              | -0.183                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 10,340          | 12.5%              | 60,858      | 14.1%              | -1.589              | -0.047                  |
| Nephropathy **                                       | 9,394           | 11.3%              | 67,527      | 15.6%              | -4.270              | -0.125                  |
| Neuropathy **                                        | 21,578          | 26.0%              | 118,034     | 27.3%              | -1.244              | -0.028                  |
| Any IPP or ED Hypoglycemia                           | 73              | 0.1%               | 611         | 0.1%               | -0.053              | -0.016                  |
| Any IPP, ED or Lab Hyperglycemia                     | 26,194          | 31.6%              | 132,018     | 30.5%              | 1.093               | 0.024                   |
| Frailty Indicators **                                | 12,381          | 14.9%              | 77,744      | 18.0%              | -3.028              | -0.082                  |
| Pneumococcal Vaccine **                              | 30,208          | 36.4%              | 177,362     | 41.0%              | -4.541              | -0.093                  |
| GLP-1RA or GIP/GLP-1RA **                            | 1,770           | 2.1%               | 5,494       | 1.3%               | 0.866               | 0.067                   |
| Insulin Initiation **                                | 1,732           | 2.1%               | 14,090      | 3.3%               | -1.166              | -0.072                  |
| Insulin or GLP-1RA                                   | 3,406           | 4.1%               | 19,120      | 4.4%               | -0.309              | -0.015                  |
| Influenza Vaccine **                                 | 37,768          | 45.6%              | 207,435     | 47.9%              | -2.371              | -0.048                  |
| Preventive Healthcare **                             | 76,920          | 92.8%              | 399,524     | 92.3%              | 0.473               | 0.018                   |
| Any HbA1c Test **                                    | 38,964          | 47.0%              | 194,081     | 44.8%              | 2.157               | 0.043                   |
| ACEis                                                | 36,795          | 44.4%              | 186,620     | 43.1%              | 1.264               | 0.025                   |
| ARBs                                                 | 18,716          | 22.6%              | 97,114      | 22.4%              | 0.138               | 0.003                   |
| Beta Blockers                                        | 25,919          | 31.3%              | 144,323     | 33.3%              | -2.081              | -0.045                  |
| Calcium Channel Blockers                             | 18,420          | 22.2%              | 106,034     | 24.5%              | -2.280              | -0.054                  |
| Statins                                              | 53,304          | 64.3%              | 283,849     | 65.6%              | -1.286              | -0.027                  |
| Any Diuretics                                        | 25,795          | 31.1%              | 138,129     | 31.9%              | -0.800              | -0.017                  |
| Any NSAID                                            | 21,608          | 26.1%              | 109,046     | 25.2%              | 0.869               | 0.020                   |



**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.4             | 1.4                | 2.5         | 1.4                | -0.042              | -0.030                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 6,166           | 7.4%               | 39,850      | 9.2%               | -1.770              | -0.064                  |
| Any ED Visits**                                                           | 7,279           | 8.8%               | 44,736      | 10.3%              | -1.556              | -0.053                  |
| Any IP Visits**                                                           | 3,513           | 4.2%               | 30,332      | 7.0%               | -2.770              | -0.120                  |
| No AV Visits                                                              | 8,818           | 10.6%              | 40,064      | 9.3%               | 1.380               | 0.046                   |
| 1-3 AV Visits**                                                           | 38,531          | 46.5%              | 186,581     | 43.1%              | 3.367               | 0.068                   |
| >3 AV Visits**                                                            | 35,565          | 42.9%              | 206,219     | 47.6%              | -4.747              | -0.095                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 11,453          | 13.8%              | 67,448      | 15.6%              | -1.769              | -0.050                  |
| Nephropathy**                                                             | 11,183          | 13.5%              | 78,262      | 18.1%              | -4.593              | -0.126                  |
| Neuropathy**                                                              | 23,736          | 28.6%              | 128,539     | 29.7%              | -1.068              | -0.023                  |
| Any IPP or ED Hypoglycemia                                                | 83              | 0.1%               | 526         | 0.1%               | -0.021              | -0.006                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 21,717          | 26.2%              | 105,620     | 24.4%              | 1.792               | 0.041                   |
| Frailty Indicators**                                                      | 13,073          | 15.8%              | 82,964      | 19.2%              | -3.399              | -0.090                  |
| Pneumococcal Vaccine**                                                    | 31,732          | 38.3%              | 184,597     | 42.6%              | -4.375              | -0.089                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,449           | 1.7%               | 6,025       | 1.4%               | 0.356               | 0.029                   |
| Insulin Initiation**                                                      | 15,789          | 19.0%              | 46,619      | 10.8%              | 8.273               | 0.234                   |
| Insulin or GLP-1RA Initiation                                             | 16,815          | 20.3%              | 51,432      | 11.9%              | 8.398               | 0.230                   |
| Influenza Vaccine**                                                       | 37,613          | 45.4%              | 206,679     | 47.7%              | -2.383              | -0.048                  |
| Preventive Healthcare**                                                   | 76,496          | 92.3%              | 396,269     | 91.5%              | 0.714               | 0.026                   |
| Any HbA1c Test**                                                          | 43,284          | 52.2%              | 217,501     | 50.2%              | 1.957               | 0.039                   |
| ACEi                                                                      | 34,292          | 41.4%              | 172,745     | 39.9%              | 1.451               | 0.030                   |
| ARB                                                                       | 17,819          | 21.5%              | 91,887      | 21.2%              | 0.263               | 0.006                   |
| Beta Blockers                                                             | 24,871          | 30.0%              | 136,752     | 31.6%              | -1.596              | -0.035                  |
| Calcium Channel Blockers                                                  | 17,495          | 21.1%              | 99,678      | 23.0%              | -1.927              | -0.046                  |
| Statins                                                                   | 50,421          | 60.8%              | 265,195     | 61.3%              | -0.454              | -0.009                  |
| Any Diuretics                                                             | 24,030          | 29.0%              | 128,947     | 29.8%              | -0.807              | -0.018                  |
| Any NSAID                                                                 | 20,140          | 24.3%              | 98,071      | 22.7%              | 1.634               | 0.039                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.5                | 2.3         | 1.5                | -0.014              | -0.010                  |

**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 13,695          | 16.5%                     | 70,715      | 16.3%                     | 0.181               | 0.005                   |
| Any ED Visits**                                                           | 6,918           | 8.3%                      | 39,634      | 9.2%                      | -0.813              | -0.029                  |
| Any IP Visits**                                                           | 3,345           | 4.0%                      | 23,424      | 5.4%                      | -1.377              | -0.065                  |
| No AV Visits                                                              | 14,360          | 17.3%                     | 75,236      | 17.4%                     | -0.062              | -0.002                  |
| 1-3 AV Visits**                                                           | 36,965          | 44.6%                     | 180,368     | 41.7%                     | 2.914               | 0.059                   |
| >3 AV Visits**                                                            | 31,589          | 38.1%                     | 177,260     | 41.0%                     | -2.852              | -0.058                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 12,495          | 15.1%                     | 73,276      | 16.9%                     | -1.858              | -0.051                  |
| Nephropathy**                                                             | 12,776          | 15.4%                     | 87,445      | 20.2%                     | -4.793              | -0.126                  |
| Neuropathy**                                                              | 25,741          | 31.0%                     | 137,786     | 31.8%                     | -0.786              | -0.017                  |
| Any IPP or ED Hypoglycemia                                                | 79              | 0.1%                      | 462         | 0.1%                      | -0.011              | -0.004                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 19,439          | 23.4%                     | 95,565      | 22.1%                     | 1.367               | 0.033                   |
| Frailty Indicators**                                                      | 13,738          | 16.6%                     | 87,317      | 20.2%                     | -3.603              | -0.093                  |
| Pneumococcal Vaccine**                                                    | 33,224          | 40.1%                     | 191,395     | 44.2%                     | -4.146              | -0.084                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,332           | 2.8%                      | 8,633       | 2.0%                      | 0.818               | 0.053                   |
| Insulin Initiation**                                                      | 3,278           | 4.0%                      | 18,747      | 4.3%                      | -0.377              | -0.019                  |
| Insulin or GLP-1RA Initiation                                             | 5,445           | 6.6%                      | 26,635      | 6.2%                      | 0.414               | 0.017                   |
| Influenza Vaccine**                                                       | 37,523          | 45.3%                     | 205,519     | 47.5%                     | -2.224              | -0.045                  |
| Preventive Healthcare**                                                   | 75,442          | 91.0%                     | 390,457     | 90.2%                     | 0.785               | 0.027                   |
| Any HbA1c Test**                                                          | 39,572          | 47.7%                     | 197,750     | 45.7%                     | 2.042               | 0.041                   |
| ACEi                                                                      | 32,379          | 39.1%                     | 161,458     | 37.3%                     | 1.751               | 0.036                   |
| ARB                                                                       | 17,125          | 20.7%                     | 87,689      | 20.3%                     | 0.396               | 0.010                   |
| Beta Blockers                                                             | 23,911          | 28.8%                     | 130,972     | 30.3%                     | -1.419              | -0.031                  |
| Calcium Channel Blockers                                                  | 16,632          | 20.1%                     | 95,058      | 22.0%                     | -1.901              | -0.047                  |
| Statins                                                                   | 48,188          | 58.1%                     | 251,401     | 58.1%                     | 0.040               | 0.001                   |
| Any Diuretics                                                             | 22,817          | 27.5%                     | 121,929     | 28.2%                     | -0.649              | -0.014                  |
| Any NSAID                                                                 | 19,076          | 23.0%                     | 92,281      | 21.3%                     | 1.688               | 0.041                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.5                       | 2.2         | 1.5                       | -0.001              | -0.001                  |

**Table 1e. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 13,386          | 16.1%   | 69,871      | 16.1%   | 0.003               | 0.000                   |
| Any ED Visits**                                                           | 6,494           | 7.8%    | 37,512      | 8.7%    | -0.834              | -0.030                  |
| Any IP Visits**                                                           | 3,278           | 4.0%    | 22,012      | 5.1%    | -1.132              | -0.055                  |
| No AV Visits                                                              | 18,284          | 22.1%   | 95,934      | 22.2%   | -0.111              | -0.003                  |
| 1-3 AV Visits**                                                           | 34,455          | 41.6%   | 169,950     | 39.3%   | 2.293               | 0.047                   |
| >3 AV Visits**                                                            | 30,175          | 36.4%   | 166,980     | 38.6%   | -2.182              | -0.045                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 16,666          | 20.1%   | 54,853      | 12.7%   | 7.428               | 0.202                   |
| Post-Index Insulin Initiation                                             | 10,172          | 12.3%   | 65,144      | 15.0%   | -2.781              | -0.081                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 82,898          | N/A                | 82,160      | N/A                |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 60.8            | 10.1               | 60.9        | 10.2               | -0.089              | -0.009                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 9,195           | 11.1%              | 8,890       | 10.8%              | 0.272               | 0.009                   |
| 45-54 years                               | 17,221          | 20.8%              | 17,029      | 20.7%              | 0.047               | 0.001                   |
| 55-64 years                               | 21,443          | 25.9%              | 21,427      | 26.1%              | -0.212              | -0.005                  |
| 65-74 years                               | 26,056          | 31.4%              | 25,619      | 31.2%              | 0.249               | 0.006                   |
| ≥ 75 years                                | 8,983           | 10.8%              | 9,195       | 11.2%              | -0.355              | -0.012                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Male                                      | 82,898          | 100.0%             | 82,160      | 100.0%             | 0.000               | NaN                     |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 381             | 0.5%               | 387         | 0.5%               | -0.011              | -0.002                  |
| Asian                                     | 2,089           | 2.5%               | 2,887       | 3.5%               | -0.994              | -0.059                  |
| Black or African American                 | 5,674           | 6.8%               | 7,346       | 8.9%               | -2.096              | -0.079                  |
| Multi-racial                              | 434             | 0.5%               | 394         | 0.5%               | 0.044               | 0.006                   |
| Native Hawaiian or Other Pacific Islander | 301             | 0.4%               | 263         | 0.3%               | 0.043               | 0.007                   |
| Unknown                                   | 27,543          | 33.2%              | 28,044      | 34.1%              | -0.908              | -0.026                  |
| White                                     | 46,476          | 56.1%              | 42,839      | 52.1%              | 3.923               | 0.096                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 4,165           | 5.0%               | 5,158       | 6.3%               | -1.254              | -0.056                  |
| No                                        | 52,178          | 62.9%              | 51,138      | 62.2%              | 0.701               | 0.022                   |
| Unknown                                   | 26,555          | 32.0%              | 25,864      | 31.5%              | 0.553               | 0.020                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 2,135           | 2.6%               | 2,113       | 2.6%               | 0.004               | 0.000                   |
| 2014                                      | 10,407          | 12.6%              | 10,242      | 12.5%              | 0.088               | 0.003                   |
| 2015                                      | 19,166          | 23.1%              | 18,549      | 22.6%              | 0.543               | 0.013                   |
| 2016                                      | 16,221          | 19.6%              | 16,047      | 19.5%              | 0.036               | 0.001                   |
| 2017                                      | 13,130          | 15.8%              | 13,182      | 16.0%              | -0.205              | -0.006                  |
| 2018                                      | 7,637           | 9.2%               | 7,713       | 9.4%               | -0.175              | -0.006                  |
| 2019+                                     | 14,202          | 17.1%              | 14,315      | 17.4%              | -0.291              | -0.008                  |

**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

|                                                                                                      | Medical Product |                           |             |                           | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent                   | Number      | Percent                   |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                           |             |                           |                     |                         |
| Retinopathy*                                                                                         | 8,776           | 10.6%                     | 8,716       | 10.6%                     | -0.022              | -0.001                  |
| Nephropathy*                                                                                         | 7,187           | 8.7%                      | 7,213       | 8.8%                      | -0.110              | -0.004                  |
| Neuropathy*                                                                                          | 18,769          | 22.6%                     | 18,639      | 22.7%                     | -0.046              | -0.001                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 201             | 0.2%                      | 273         | 0.3%                      | -0.090              | -0.017                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 43,810          | 52.8%                     | 43,210      | 52.6%                     | 0.255               | 0.005                   |
| Hypertension*                                                                                        | 68,000          | 82.0%                     | 67,367      | 82.0%                     | 0.033               | 0.001                   |
| Dyslipidemia*                                                                                        | 66,236          | 79.9%                     | 65,510      | 79.7%                     | 0.165               | 0.004                   |
| Coronary Artery Disease*                                                                             | 20,203          | 24.4%                     | 20,155      | 24.5%                     | -0.161              | -0.004                  |
| Cerebrovascular Disease*                                                                             | 3,372           | 4.1%                      | 3,394       | 4.1%                      | -0.064              | -0.003                  |
| Peripheral Vascular Disease*                                                                         | 8,954           | 10.8%                     | 8,948       | 10.9%                     | -0.090              | -0.003                  |
| Congestive Heart Failure*                                                                            | 6,588           | 7.9%                      | 6,624       | 8.1%                      | -0.115              | -0.004                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 10,558          | 12.7%                     | 10,487      | 12.8%                     | -0.028              | -0.001                  |
| Depression*                                                                                          | 10,535          | 12.7%                     | 10,438      | 12.7%                     | 0.004               | 0.000                   |
| Obesity*                                                                                             | 27,169          | 32.8%                     | 26,802      | 32.6%                     | 0.152               | 0.003                   |
| Cancer (Excluding NMSC)*                                                                             | 11,918          | 14.4%                     | 11,870      | 14.4%                     | -0.071              | -0.002                  |
| Hepatitis C Infection                                                                                | 947             | 1.1%                      | 1,020       | 1.2%                      | -0.099              | -0.009                  |
| History of Kidney Stones*                                                                            | 3,285           | 4.0%                      | 3,280       | 4.0%                      | -0.030              | -0.002                  |
| Sickle Cell Disease                                                                                  | 18              | 0.0%                      | 17          | 0.0%                      | 0.000               | 0.000                   |
| Smoking*                                                                                             | 16,352          | 19.7%                     | 16,324      | 19.9%                     | -0.143              | -0.004                  |
| Alcohol Use*                                                                                         | 2,317           | 2.8%                      | 2,333       | 2.8%                      | -0.045              | -0.003                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 78              | 0.1%                      | 97          | 0.1%                      | -0.024              | -0.007                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                           |             |                           |                     |                         |
| Metformin*                                                                                           | 76,244          | 92.0%                     | 75,548      | 92.0%                     | 0.021               | 0.001                   |
| Sulfonylureas*                                                                                       | 41,167          | 49.7%                     | 41,008      | 49.9%                     | -0.253              | -0.005                  |
| Thiazolidinediones*                                                                                  | 9,946           | 12.0%                     | 9,804       | 11.9%                     | 0.065               | 0.002                   |
| Alpha Glucosidase Inhibitor                                                                          | 485             | 0.6%                      | 425         | 0.5%                      | 0.067               | 0.009                   |
| Meglitinides                                                                                         | 1,027           | 1.2%                      | 879         | 1.1%                      | 0.168               | 0.016                   |
|                                                                                                      | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.6             | 0.6                       | 1.6         | 0.6                       | 0.001               | 0.001                   |

**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

|                                                   | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                   | Canagliflozin   |         | Sitagliptin |         |                     |                         |
|                                                   | Number          | Percent | Number      | Percent | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes               |                 |         |             |         |                     |                         |
| 1                                                 | 42,600          | 51.4%   | 42,153      | 51.3%   | 0.083               | 0.002                   |
| 2                                                 | 34,765          | 41.9%   | 34,626      | 42.1%   | -0.208              | -0.004                  |
| 3                                                 | 5,394           | 6.5%    | 5,265       | 6.4%    | 0.099               | 0.004                   |
| 4+                                                | 139             | 0.2%    | 116         | 0.1%    | 0.026               | 0.007                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                 | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| DPP-4 Inhibitors                                  | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                 | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                           | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin             | 18,884          | 22.8%   | 17,480      | 21.3%   | 1.504               | 0.036                   |
| Short- and Rapid-Acting Insulin                   | 8,629           | 10.4%   | 6,298       | 7.7%    | 2.744               | 0.096                   |
| Combination Insulins                              | 2,560           | 3.1%    | 2,021       | 2.5%    | 0.629               | 0.038                   |
| Any Insulin*                                      | 21,672          | 26.1%   | 21,000      | 25.6%   | 0.583               | 0.013                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis) | 44,388          | 53.5%   | 43,977      | 53.5%   | 0.019               | 0.000                   |
| Angiotensin Receptor Blockers (ARBs)*             | 20,965          | 25.3%   | 20,746      | 25.3%   | 0.039               | 0.001                   |
| Beta Blockers*                                    | 29,810          | 36.0%   | 29,609      | 36.0%   | -0.079              | -0.002                  |
| Calcium Channel Blockers*                         | 21,630          | 26.1%   | 21,531      | 26.2%   | -0.114              | -0.003                  |
| Statins*                                          | 60,678          | 73.2%   | 60,120      | 73.2%   | 0.022               | 0.000                   |
| Loop Diuretics                                    | 9,540           | 11.5%   | 9,100       | 11.1%   | 0.432               | 0.014                   |
| Other Diuretics                                   | 25,944          | 31.3%   | 26,055      | 31.7%   | -0.416              | -0.009                  |
| Any Diuretic*                                     | 31,831          | 38.4%   | 31,592      | 38.5%   | -0.054              | -0.001                  |
| Aspirin, Acetaminophen or Other NSAIDs*           | 37,891          | 45.7%   | 37,579      | 45.7%   | -0.031              | -0.001                  |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |

**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                    | Number          | Percent            | Number      | Percent            |                     |                         |
| Number of AV Visits (Categorical)*                                 |                 |                    |             |                    |                     |                         |
| 0-4                                                                | 12,320          | 14.9%              | 12,195      | 14.8%              | 0.018               | 0.001                   |
| 5-10                                                               | 26,272          | 31.7%              | 25,984      | 31.6%              | 0.066               | 0.001                   |
| 11-15                                                              | 14,521          | 17.5%              | 14,376      | 17.5%              | 0.019               | 0.001                   |
| 16+                                                                | 29,785          | 35.9%              | 29,605      | 36.0%              | -0.103              | -0.002                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.5             | 1.5                | 0.5         | 1.5                | -0.016              | -0.011                  |
| Number of ED Visits (Categorical)*                                 |                 |                    |             |                    |                     |                         |
| 0                                                                  | 61,632          | 74.3%              | 60,937      | 74.2%              | 0.178               | 0.004                   |
| 1                                                                  | 12,923          | 15.6%              | 12,869      | 15.7%              | -0.074              | -0.002                  |
| 2+                                                                 | 8,343           | 10.1%              | 8,354       | 10.2%              | -0.104              | -0.003                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.2         | 0.6                | -0.006              | -0.011                  |
| Number of IP Visits (Categorical)*                                 |                 |                    |             |                    |                     |                         |
| 0                                                                  | 73,626          | 88.8%              | 72,915      | 88.7%              | 0.067               | 0.002                   |
| 1                                                                  | 7,144           | 8.6%               | 7,112       | 8.7%               | -0.038              | -0.001                  |
| 2+                                                                 | 2,128           | 2.6%               | 2,133       | 2.6%               | -0.029              | -0.002                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.3             | 1.6                | 1.4         | 1.6                | -0.015              | -0.009                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   |                 |                    |             |                    |                     |                         |
| 0                                                                  | 35,427          | 42.7%              | 35,033      | 42.6%              | 0.096               | 0.002                   |
| 1                                                                  | 17,438          | 21.0%              | 17,181      | 20.9%              | 0.124               | 0.003                   |
| 2                                                                  | 13,340          | 16.1%              | 13,269      | 16.2%              | -0.058              | -0.002                  |
| 3+                                                                 | 16,693          | 20.1%              | 16,677      | 20.3%              | -0.161              | -0.004                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.1             | 0.0                | 0.2         | 0.0                | -0.001              | -0.019                  |

**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 2,491           | 3.0%               | 2,494       | 3.0%               | -0.031              | -0.002                  |
| <0.25                                                | 80,407          | 97.0%              | 79,665      | 97.0%              | 0.031               | 0.002                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.1             | 2.0                | 1.2         | 2.1                | -0.042              | -0.021                  |
| Combined Comorbidity Score Categories *              |                 |                    |             |                    |                     |                         |
| <1                                                   | 39,195          | 47.3%              | 38,618      | 47.0%              | 0.277               | 0.006                   |
| 1                                                    | 17,904          | 21.6%              | 17,738      | 21.6%              | 0.008               | 0.000                   |
| 2                                                    | 10,158          | 12.3%              | 10,118      | 12.3%              | -0.061              | -0.002                  |
| 3+                                                   | 15,641          | 18.9%              | 15,685      | 19.1%              | -0.224              | -0.006                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 10,337          | 12.5%              | 10,446      | 12.7%              | -0.245              | -0.007                  |
| Nephropathy **                                       | 9,391           | 11.3%              | 9,872       | 12.0%              | -0.687              | -0.022                  |
| Neuropathy **                                        | 21,571          | 26.0%              | 21,535      | 26.2%              | -0.190              | -0.004                  |
| Any IPP or ED Hypoglycemia                           | 73              | 0.1%               | 103         | 0.1%               | -0.037              | -0.011                  |
| Any IPP, ED or Lab Hyperglycemia                     | 26,189          | 31.6%              | 26,475      | 32.2%              | -0.632              | -0.014                  |
| Frailty Indicators **                                | 12,375          | 14.9%              | 12,481      | 15.2%              | -0.263              | -0.007                  |
| Pneumococcal Vaccine **                              | 30,204          | 36.4%              | 30,187      | 36.7%              | -0.307              | -0.007                  |
| GLP-1RA or GIP/GLP-1RA **                            | 1,769           | 2.1%               | 1,077       | 1.3%               | 0.823               | 0.063                   |
| Insulin Initiation **                                | 1,732           | 2.1%               | 2,071       | 2.5%               | -0.432              | -0.029                  |
| Insulin or GLP-1RA                                   | 3,405           | 4.1%               | 3,076       | 3.7%               | 0.364               | 0.019                   |
| Influenza Vaccine **                                 | 37,759          | 45.5%              | 37,414      | 45.5%              | 0.011               | 0.000                   |
| Preventive Healthcare **                             | 76,905          | 92.8%              | 76,180      | 92.7%              | 0.049               | 0.002                   |
| Any HbA1c Test **                                    | 38,956          | 47.0%              | 37,216      | 45.3%              | 1.696               | 0.034                   |
| ACEis                                                | 36,791          | 44.4%              | 37,128      | 45.2%              | -0.809              | -0.016                  |
| ARBs                                                 | 18,710          | 22.6%              | 18,715      | 22.8%              | -0.208              | -0.005                  |
| Beta Blockers                                        | 25,914          | 31.3%              | 26,229      | 31.9%              | -0.664              | -0.015                  |
| Calcium Channel Blockers                             | 18,414          | 22.2%              | 18,830      | 22.9%              | -0.706              | -0.017                  |
| Statins                                              | 53,294          | 64.3%              | 53,398      | 65.0%              | -0.704              | -0.015                  |
| Any Diuretics                                        | 25,787          | 31.1%              | 26,728      | 32.5%              | -1.425              | -0.031                  |
| Any NSAID                                            | 21,602          | 26.1%              | 21,827      | 26.6%              | -0.509              | -0.012                  |



**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.4             | 1.4                | 2.5         | 1.4                | -0.050              | -0.035                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 6,164           | 7.4%               | 7,471       | 9.1%               | -1.658              | -0.060                  |
| Any ED Visits**                                                           | 7,278           | 8.8%               | 7,907       | 9.6%               | -0.844              | -0.029                  |
| Any IP Visits**                                                           | 3,513           | 4.2%               | 4,356       | 5.3%               | -1.064              | -0.050                  |
| No AV Visits                                                              | 8,815           | 10.6%              | 8,079       | 9.8%               | 0.800               | 0.027                   |
| 1-3 AV Visits**                                                           | 38,526          | 46.5%              | 37,288      | 45.4%              | 1.090               | 0.022                   |
| >3 AV Visits**                                                            | 35,557          | 42.9%              | 36,793      | 44.8%              | -1.890              | -0.039                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 11,450          | 13.8%              | 11,644      | 14.2%              | -0.361              | -0.010                  |
| Nephropathy**                                                             | 11,180          | 13.5%              | 11,781      | 14.3%              | -0.853              | -0.025                  |
| Neuropathy**                                                              | 23,729          | 28.6%              | 23,632      | 28.8%              | -0.139              | -0.003                  |
| Any IPP or ED Hypoglycemia                                                | 83              | 0.1%               | 101         | 0.1%               | -0.022              | -0.007                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 21,711          | 26.2%              | 21,521      | 26.2%              | -0.004              | -0.000                  |
| Frailty Indicators**                                                      | 13,066          | 15.8%              | 13,394      | 16.3%              | -0.541              | -0.015                  |
| Pneumococcal Vaccine**                                                    | 31,727          | 38.3%              | 31,705      | 38.6%              | -0.317              | -0.007                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,448           | 1.7%               | 1,229       | 1.5%               | 0.251               | 0.020                   |
| Insulin Initiation**                                                      | 15,784          | 19.0%              | 13,946      | 17.0%              | 2.066               | 0.054                   |
| Insulin or GLP-1RA Initiation                                             | 16,809          | 20.3%              | 14,795      | 18.0%              | 2.269               | 0.058                   |
| Influenza Vaccine**                                                       | 37,606          | 45.4%              | 37,265      | 45.4%              | 0.008               | 0.000                   |
| Preventive Healthcare**                                                   | 76,482          | 92.3%              | 75,614      | 92.0%              | 0.228               | 0.009                   |
| Any HbA1c Test**                                                          | 43,275          | 52.2%              | 41,897      | 51.0%              | 1.208               | 0.024                   |
| ACEi                                                                      | 34,288          | 41.4%              | 34,455      | 41.9%              | -0.575              | -0.012                  |
| ARB                                                                       | 17,814          | 21.5%              | 17,755      | 21.6%              | -0.122              | -0.003                  |
| Beta Blockers                                                             | 24,866          | 30.0%              | 24,950      | 30.4%              | -0.372              | -0.008                  |
| Calcium Channel Blockers                                                  | 17,490          | 21.1%              | 17,790      | 21.7%              | -0.555              | -0.014                  |
| Statins                                                                   | 50,411          | 60.8%              | 49,995      | 60.9%              | -0.040              | -0.001                  |
| Any Diuretics                                                             | 24,024          | 29.0%              | 25,127      | 30.6%              | -1.602              | -0.035                  |
| Any NSAID                                                                 | 20,137          | 24.3%              | 19,691      | 24.0%              | 0.325               | 0.008                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.5                | 2.3         | 1.5                | -0.029              | -0.020                  |

**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 13,692          | 16.5%                     | 13,474      | 16.4%                     | 0.117               | 0.003                   |
| Any ED Visits**                                                           | 6,917           | 8.3%                      | 7,220       | 8.8%                      | -0.443              | -0.016                  |
| Any IP Visits**                                                           | 3,344           | 4.0%                      | 3,645       | 4.4%                      | -0.402              | -0.020                  |
| No AV Visits                                                              | 14,357          | 17.3%                     | 14,647      | 17.8%                     | -0.508              | -0.014                  |
| 1-3 AV Visits**                                                           | 36,959          | 44.6%                     | 35,818      | 43.6%                     | 0.988               | 0.020                   |
| >3 AV Visits**                                                            | 31,582          | 38.1%                     | 31,695      | 38.6%                     | -0.480              | -0.010                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 12,492          | 15.1%                     | 12,766      | 15.5%                     | -0.468              | -0.013                  |
| Nephropathy**                                                             | 12,772          | 15.4%                     | 13,408      | 16.3%                     | -0.912              | -0.025                  |
| Neuropathy**                                                              | 25,734          | 31.0%                     | 25,528      | 31.1%                     | -0.029              | -0.001                  |
| Any IPP or ED Hypoglycemia                                                | 79              | 0.1%                      | 91          | 0.1%                      | -0.015              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 19,431          | 23.4%                     | 19,721      | 24.0%                     | -0.564              | -0.013                  |
| Frailty Indicators**                                                      | 13,731          | 16.6%                     | 14,139      | 17.2%                     | -0.646              | -0.017                  |
| Pneumococcal Vaccine**                                                    | 33,219          | 40.1%                     | 33,115      | 40.3%                     | -0.234              | -0.005                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,330           | 2.8%                      | 1,738       | 2.1%                      | 0.695               | 0.045                   |
| Insulin Initiation**                                                      | 3,276           | 4.0%                      | 3,763       | 4.6%                      | -0.628              | -0.031                  |
| Insulin or GLP-1RA Initiation                                             | 5,442           | 6.6%                      | 5,354       | 6.5%                      | 0.049               | 0.002                   |
| Influenza Vaccine**                                                       | 37,517          | 45.3%                     | 37,017      | 45.1%                     | 0.202               | 0.004                   |
| Preventive Healthcare**                                                   | 75,428          | 91.0%                     | 74,607      | 90.8%                     | 0.182               | 0.006                   |
| Any HbA1c Test**                                                          | 39,562          | 47.7%                     | 38,403      | 46.7%                     | 0.982               | 0.020                   |
| ACEi                                                                      | 32,375          | 39.1%                     | 32,343      | 39.4%                     | -0.312              | -0.006                  |
| ARB                                                                       | 17,120          | 20.7%                     | 16,972      | 20.7%                     | -0.005              | -0.000                  |
| Beta Blockers                                                             | 23,905          | 28.8%                     | 24,010      | 29.2%                     | -0.387              | -0.009                  |
| Calcium Channel Blockers                                                  | 16,627          | 20.1%                     | 17,076      | 20.8%                     | -0.727              | -0.018                  |
| Statins                                                                   | 48,179          | 58.1%                     | 47,544      | 57.9%                     | 0.251               | 0.005                   |
| Any Diuretics                                                             | 22,812          | 27.5%                     | 23,882      | 29.1%                     | -1.550              | -0.035                  |
| Any NSAID                                                                 | 19,074          | 23.0%                     | 18,702      | 22.8%                     | 0.246               | 0.006                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.5                       | 2.2         | 1.5                       | -0.025              | -0.016                  |

**Table 1f. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Sex: Male**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 13,383          | 16.1%   | 13,511      | 16.4%   | -0.301              | -0.008                  |
| Any ED Visits**                                                           | 6,494           | 7.8%    | 6,864       | 8.4%    | -0.521              | -0.019                  |
| Any IP Visits**                                                           | 3,278           | 4.0%    | 3,520       | 4.3%    | -0.330              | -0.017                  |
| No AV Visits                                                              | 18,281          | 22.1%   | 18,283      | 22.3%   | -0.201              | -0.005                  |
| 1-3 AV Visits**                                                           | 34,450          | 41.6%   | 33,774      | 41.1%   | 0.449               | 0.009                   |
| >3 AV Visits**                                                            | 30,167          | 36.4%   | 30,102      | 36.6%   | -0.248              | -0.005                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 16,660          | 20.1%   | 11,941      | 14.5%   | 5.563               | 0.148                   |
| Post-Index Insulin Initiation                                             | 10,172          | 12.3%   | 11,184      | 13.6%   | -1.341              | -0.040                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1g. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Unique patients                           | 91,795          | 100.0%             | 397,084     | 100.0%             |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 52.2            | 8.7                | 52.8        | 8.8                | -0.632              | -0.072                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 18,796          | 20.5%              | 74,905      | 18.9%              | 1.612               | 0.041                   |
| 45-54 years                               | 31,991          | 34.9%              | 129,140     | 32.5%              | 2.328               | 0.049                   |
| 55-64 years                               | 41,008          | 44.7%              | 193,039     | 48.6%              | -3.941              | -0.079                  |
| 65-74 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| ≥ 75 years                                | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 43,928          | 47.9%              | 199,673     | 50.3%              | -2.430              | -0.049                  |
| Male                                      | 47,867          | 52.1%              | 197,411     | 49.7%              | 2.430               | 0.049                   |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 593             | 0.6%               | 3,223       | 0.8%               | -0.166              | -0.019                  |
| Asian                                     | 2,383           | 2.6%               | 18,886      | 4.8%               | -2.160              | -0.115                  |
| Black or African American                 | 9,614           | 10.5%              | 59,226      | 14.9%              | -4.442              | -0.134                  |
| Multi-racial                              | 691             | 0.8%               | 2,944       | 0.7%               | 0.011               | 0.001                   |
| Native Hawaiian or Other Pacific Islander | 335             | 0.4%               | 1,488       | 0.4%               | -0.010              | -0.002                  |
| Unknown                                   | 42,567          | 46.4%              | 146,601     | 36.9%              | 9.452               | 0.193                   |
| White                                     | 35,612          | 38.8%              | 164,716     | 41.5%              | -2.686              | -0.055                  |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 7,898           | 8.6%               | 47,348      | 11.9%              | -3.320              | -0.110                  |
| No                                        | 45,152          | 49.2%              | 234,674     | 59.1%              | -9.911              | -0.200                  |
| Unknown                                   | 38,745          | 42.2%              | 115,062     | 29.0%              | 13.231              | 0.279                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 2,730           | 3.0%               | 25,390      | 6.4%               | -3.420              | -0.162                  |
| 2014                                      | 11,262          | 12.3%              | 35,704      | 9.0%               | 3.277               | 0.106                   |
| 2015                                      | 19,908          | 21.7%              | 36,805      | 9.3%               | 12.419              | 0.349                   |
| 2016                                      | 17,447          | 19.0%              | 38,914      | 9.8%               | 9.207               | 0.264                   |
| 2017                                      | 16,576          | 18.1%              | 60,741      | 15.3%              | 2.761               | 0.074                   |
| 2018                                      | 9,116           | 9.9%               | 55,990      | 14.1%              | -4.169              | -0.128                  |
| 2019+                                     | 14,756          | 16.1%              | 143,540     | 36.1%              | -20.074             | -0.469                  |

**Table 1g. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

|                                                                                                      | Medical Product |                           |             |                           | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent                   | Number      | Percent                   |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                           |             |                           |                     |                         |
| Retinopathy*                                                                                         | 7,577           | 8.3%                      | 34,992      | 8.8%                      | -0.558              | -0.020                  |
| Nephropathy*                                                                                         | 5,608           | 6.1%                      | 28,626      | 7.2%                      | -1.100              | -0.044                  |
| Neuropathy*                                                                                          | 19,994          | 21.8%                     | 84,920      | 21.4%                     | 0.395               | 0.010                   |
| Any IPP or ED Hypoglycemia Visit                                                                     | 238             | 0.3%                      | 1,351       | 0.3%                      | -0.081              | -0.015                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 51,333          | 55.9%                     | 210,093     | 52.9%                     | 3.012               | 0.061                   |
| Hypertension*                                                                                        | 67,901          | 74.0%                     | 285,749     | 72.0%                     | 2.008               | 0.045                   |
| Dyslipidemia*                                                                                        | 64,902          | 70.7%                     | 265,172     | 66.8%                     | 3.923               | 0.085                   |
| Coronary Artery Disease*                                                                             | 11,798          | 12.9%                     | 49,854      | 12.6%                     | 0.298               | 0.009                   |
| Cerebrovascular Disease*                                                                             | 2,801           | 3.1%                      | 15,174      | 3.8%                      | -0.770              | -0.042                  |
| Peripheral Vascular Disease*                                                                         | 5,756           | 6.3%                      | 29,396      | 7.4%                      | -1.132              | -0.045                  |
| Congestive Heart Failure*                                                                            | 4,879           | 5.3%                      | 23,210      | 5.8%                      | -0.530              | -0.023                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 11,307          | 12.3%                     | 51,624      | 13.0%                     | -0.683              | -0.021                  |
| Depression*                                                                                          | 18,613          | 20.3%                     | 83,465      | 21.0%                     | -0.743              | -0.018                  |
| Obesity*                                                                                             | 34,696          | 37.8%                     | 137,987     | 34.8%                     | 3.047               | 0.063                   |
| Cancer (Excluding NMSC)*                                                                             | 7,616           | 8.3%                      | 35,894      | 9.0%                      | -0.743              | -0.026                  |
| Hepatitis C Infection                                                                                | 1,196           | 1.3%                      | 6,157       | 1.6%                      | -0.248              | -0.021                  |
| History of Kidney Stones*                                                                            | 2,740           | 3.0%                      | 13,150      | 3.3%                      | -0.327              | -0.019                  |
| Sickle Cell Disease                                                                                  | 28              | 0.0%                      | 175         | 0.0%                      | -0.014              | -0.007                  |
| Smoking*                                                                                             | 17,524          | 19.1%                     | 82,851      | 20.9%                     | -1.774              | -0.044                  |
| Alcohol Use*                                                                                         | 2,314           | 2.5%                      | 13,019      | 3.3%                      | -0.758              | -0.045                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 39              | 0.0%                      | 287         | 0.1%                      | -0.030              | -0.012                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                           |             |                           |                     |                         |
| Metformin*                                                                                           | 85,035          | 92.6%                     | 368,534     | 92.8%                     | -0.174              | -0.007                  |
| Sulfonylureas*                                                                                       | 40,338          | 43.9%                     | 171,177     | 43.1%                     | 0.835               | 0.017                   |
| Thiazolidinediones*                                                                                  | 8,236           | 9.0%                      | 23,538      | 5.9%                      | 3.044               | 0.116                   |
| Alpha Glucosidase Inhibitor                                                                          | 424             | 0.5%                      | 1,542       | 0.4%                      | 0.074               | 0.011                   |
| Meglitinides                                                                                         | 779             | 0.8%                      | 2,633       | 0.7%                      | 0.186               | 0.021                   |
|                                                                                                      | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.5             | 0.6                       | 1.4         | 0.6                       | 0.040               | 0.069                   |

Page 67 of 686

**Table 1g. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 14,042          | 15.3%              | 63,190      | 15.9%              | -0.616              | -0.017                  |
| 5-10                                                               | 29,516          | 32.2%              | 121,844     | 30.7%              | 1.470               | 0.032                   |
| 11-15                                                              | 15,476          | 16.9%              | 65,704      | 16.5%              | 0.313               | 0.008                   |
| 16+                                                                | 32,761          | 35.7%              | 146,346     | 36.9%              | -1.166              | -0.024                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.8             | 2.0                | 0.9         | 2.2                | -0.092              | -0.044                  |
| Number of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 60,778          | 66.2%              | 254,164     | 64.0%              | 2.203               | 0.046                   |
| 1                                                                  | 16,513          | 18.0%              | 73,654      | 18.5%              | -0.560              | -0.014                  |
| 2+                                                                 | 14,504          | 15.8%              | 69,266      | 17.4%              | -1.643              | -0.044                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.2         | 0.7                | -0.057              | -0.088                  |
| Number of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 81,565          | 88.9%              | 343,164     | 86.4%              | 2.435               | 0.074                   |
| 1                                                                  | 7,838           | 8.5%               | 38,447      | 9.7%               | -1.144              | -0.040                  |
| 2+                                                                 | 2,392           | 2.6%               | 15,473      | 3.9%               | -1.291              | -0.073                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 0.9             | 1.3                | 1.0         | 1.4                | -0.044              | -0.032                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 49,678          | 54.1%              | 215,848     | 54.4%              | -0.240              | -0.005                  |
| 1                                                                  | 19,426          | 21.2%              | 78,839      | 19.9%              | 1.308               | 0.032                   |
| 2                                                                  | 11,329          | 12.3%              | 49,495      | 12.5%              | -0.123              | -0.004                  |
| 3+                                                                 | 11,362          | 12.4%              | 52,902      | 13.3%              | -0.945              | -0.028                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.0                | -0.003              | -0.063                  |

**Table 1g. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 3,201           | 3.5%               | 18,978      | 4.8%               | -1.292              | -0.065                  |
| <0.25                                                | 88,594          | 96.5%              | 378,106     | 95.2%              | 1.292               | 0.065                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.0             | 1.7                | 1.2         | 1.9                | -0.243              | -0.133                  |
| Combined Comorbidity Score Categories *              | Number          | Percent            | Number      | Percent            |                     |                         |
| <1                                                   | 43,599          | 47.5%              | 169,821     | 42.8%              | 4.729               | 0.095                   |
| 1                                                    | 21,899          | 23.9%              | 97,099      | 24.5%              | -0.597              | -0.014                  |
| 2                                                    | 12,021          | 13.1%              | 54,832      | 13.8%              | -0.713              | -0.021                  |
| 3+                                                   | 14,276          | 15.6%              | 75,332      | 19.0%              | -3.419              | -0.091                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 9,188           | 10.0%              | 42,833      | 10.8%              | -0.778              | -0.025                  |
| Nephropathy **                                       | 7,419           | 8.1%               | 37,286      | 9.4%               | -1.308              | -0.046                  |
| Neuropathy **                                        | 23,166          | 25.2%              | 98,883      | 24.9%              | 0.334               | 0.008                   |
| Any IPP or ED Hypoglycemia                           | 88              | 0.1%               | 484         | 0.1%               | -0.026              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                     | 30,541          | 33.3%              | 128,668     | 32.4%              | 0.868               | 0.018                   |
| Frailty Indicators **                                | 12,062          | 13.1%              | 51,726      | 13.0%              | 0.114               | 0.003                   |
| Pneumococcal Vaccine **                              | 20,719          | 22.6%              | 94,684      | 23.8%              | -1.274              | -0.030                  |
| GLP-1RA or GIP/GLP-1RA **                            | 2,841           | 3.1%               | 8,032       | 2.0%               | 1.072               | 0.068                   |
| Insulin Initiation **                                | 1,973           | 2.1%               | 14,439      | 3.6%               | -1.487              | -0.089                  |
| Insulin or GLP-1RA                                   | 4,667           | 5.1%               | 21,798      | 5.5%               | -0.405              | -0.018                  |
| Influenza Vaccine **                                 | 33,719          | 36.7%              | 147,354     | 37.1%              | -0.376              | -0.008                  |
| Preventive Healthcare **                             | 84,256          | 91.8%              | 360,376     | 90.8%              | 1.032               | 0.037                   |
| Any HbA1c Test **                                    | 41,096          | 44.8%              | 169,337     | 42.6%              | 2.124               | 0.043                   |
| ACEis                                                | 37,478          | 40.8%              | 160,223     | 40.3%              | 0.478               | 0.010                   |
| ARBs                                                 | 18,139          | 19.8%              | 76,110      | 19.2%              | 0.593               | 0.015                   |
| Beta Blockers                                        | 21,679          | 23.6%              | 93,987      | 23.7%              | -0.053              | -0.001                  |
| Calcium Channel Blockers                             | 15,672          | 17.1%              | 73,709      | 18.6%              | -1.490              | -0.039                  |
| Statins                                              | 52,258          | 56.9%              | 232,708     | 58.6%              | -1.675              | -0.034                  |
| Any Diuretics                                        | 27,133          | 29.6%              | 115,235     | 29.0%              | 0.538               | 0.012                   |
| Any NSAID                                            | 31,196          | 34.0%              | 140,776     | 35.5%              | -1.468              | -0.031                  |



**Table 1g. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.4                | 2.2         | 1.4                | -0.031              | -0.022                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 7,519           | 8.2%               | 40,677      | 10.2%              | -2.053              | -0.071                  |
| Any ED Visits**                                                           | 11,452          | 12.5%              | 53,388      | 13.4%              | -0.969              | -0.029                  |
| Any IP Visits**                                                           | 3,436           | 3.7%               | 21,333      | 5.4%               | -1.629              | -0.078                  |
| No AV Visits                                                              | 10,079          | 11.0%              | 39,405      | 9.9%               | 1.056               | 0.035                   |
| 1-3 AV Visits**                                                           | 42,085          | 45.8%              | 174,897     | 44.0%              | 1.801               | 0.036                   |
| >3 AV Visits**                                                            | 39,631          | 43.2%              | 182,782     | 46.0%              | -2.858              | -0.058                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 10,256          | 11.2%              | 47,986      | 12.1%              | -0.912              | -0.028                  |
| Nephropathy**                                                             | 8,720           | 9.5%               | 43,245      | 10.9%              | -1.391              | -0.046                  |
| Neuropathy**                                                              | 25,423          | 27.7%              | 108,200     | 27.2%              | 0.447               | 0.010                   |
| Any IPP or ED Hypoglycemia                                                | 94              | 0.1%               | 393         | 0.1%               | 0.003               | 0.001                   |
| Any IPP, ED or Lab Hyperglycemia                                          | 24,502          | 26.7%              | 99,902      | 25.2%              | 1.533               | 0.035                   |
| Frailty Indicators**                                                      | 12,770          | 13.9%              | 55,478      | 14.0%              | -0.060              | -0.002                  |
| Pneumococcal Vaccine**                                                    | 22,094          | 24.1%              | 100,244     | 25.2%              | -1.176              | -0.027                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,243           | 2.4%               | 8,604       | 2.2%               | 0.277               | 0.018                   |
| Insulin Initiation**                                                      | 19,044          | 20.7%              | 52,172      | 13.1%              | 7.607               | 0.204                   |
| Insulin or GLP-1RA Initiation                                             | 20,574          | 22.4%              | 58,901      | 14.8%              | 7.580               | 0.196                   |
| Influenza Vaccine**                                                       | 33,774          | 36.8%              | 147,791     | 37.2%              | -0.426              | -0.009                  |
| Preventive Healthcare**                                                   | 83,614          | 91.1%              | 357,357     | 90.0%              | 1.092               | 0.037                   |
| Any HbA1c Test**                                                          | 44,204          | 48.2%              | 182,112     | 45.9%              | 2.293               | 0.046                   |
| ACEi                                                                      | 34,224          | 37.3%              | 145,460     | 36.6%              | 0.651               | 0.013                   |
| ARB                                                                       | 16,912          | 18.4%              | 70,791      | 17.8%              | 0.596               | 0.015                   |
| Beta Blockers                                                             | 20,417          | 22.2%              | 87,683      | 22.1%              | 0.160               | 0.004                   |
| Calcium Channel Blockers                                                  | 14,587          | 15.9%              | 68,131      | 17.2%              | -1.267              | -0.034                  |
| Statins                                                                   | 48,524          | 52.9%              | 212,216     | 53.4%              | -0.582              | -0.012                  |
| Any Diuretics                                                             | 24,847          | 27.1%              | 105,663     | 26.6%              | 0.458               | 0.010                   |
| Any NSAID                                                                 | 28,846          | 31.4%              | 126,577     | 31.9%              | -0.452              | -0.010                  |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.1             | 1.5                | 2.1         | 1.5                | -0.004              | -0.003                  |

**Table 1g. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 15,309          | 16.7%                     | 65,197      | 16.4%                     | 0.258               | 0.007                   |
| Any ED Visits**                                                           | 10,529          | 11.5%                     | 48,226      | 12.1%                     | -0.675              | -0.021                  |
| Any IP Visits**                                                           | 3,333           | 3.6%                      | 16,625      | 4.2%                      | -0.556              | -0.029                  |
| No AV Visits                                                              | 18,049          | 19.7%                     | 80,666      | 20.3%                     | -0.652              | -0.016                  |
| 1-3 AV Visits**                                                           | 40,038          | 43.6%                     | 165,309     | 41.6%                     | 1.986               | 0.040                   |
| >3 AV Visits**                                                            | 33,708          | 36.7%                     | 151,109     | 38.1%                     | -1.334              | -0.028                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 11,257          | 12.3%                     | 52,417      | 13.2%                     | -0.937              | -0.028                  |
| Nephropathy**                                                             | 9,890           | 10.8%                     | 48,496      | 12.2%                     | -1.439              | -0.045                  |
| Neuropathy**                                                              | 27,516          | 30.0%                     | 116,155     | 29.3%                     | 0.723               | 0.016                   |
| Any IPP or ED Hypoglycemia                                                | 95              | 0.1%                      | 387         | 0.1%                      | 0.006               | 0.002                   |
| Any IPP, ED or Lab Hyperglycemia                                          | 21,776          | 23.7%                     | 89,496      | 22.5%                     | 1.184               | 0.028                   |
| Frailty Indicators**                                                      | 13,439          | 14.6%                     | 58,637      | 14.8%                     | -0.127              | -0.004                  |
| Pneumococcal Vaccine**                                                    | 23,369          | 25.5%                     | 105,379     | 26.5%                     | -1.080              | -0.025                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 3,662           | 4.0%                      | 12,625      | 3.2%                      | 0.810               | 0.044                   |
| Insulin Initiation**                                                      | 3,800           | 4.1%                      | 19,693      | 5.0%                      | -0.820              | -0.039                  |
| Insulin or GLP-1RA Initiation                                             | 7,193           | 7.8%                      | 31,146      | 7.8%                      | -0.008              | -0.000                  |
| Influenza Vaccine**                                                       | 33,528          | 36.5%                     | 146,714     | 36.9%                     | -0.423              | -0.009                  |
| Preventive Healthcare**                                                   | 82,207          | 89.6%                     | 350,970     | 88.4%                     | 1.168               | 0.037                   |
| Any HbA1c Test**                                                          | 40,120          | 43.7%                     | 162,755     | 41.0%                     | 2.719               | 0.055                   |
| ACEi                                                                      | 31,832          | 34.7%                     | 134,097     | 33.8%                     | 0.907               | 0.019                   |
| ARB                                                                       | 16,009          | 17.4%                     | 66,431      | 16.7%                     | 0.710               | 0.019                   |
| Beta Blockers                                                             | 19,295          | 21.0%                     | 82,710      | 20.8%                     | 0.190               | 0.005                   |
| Calcium Channel Blockers                                                  | 13,684          | 14.9%                     | 63,873      | 16.1%                     | -1.178              | -0.033                  |
| Statins                                                                   | 45,644          | 49.7%                     | 197,929     | 49.8%                     | -0.122              | -0.002                  |
| Any Diuretics                                                             | 23,197          | 25.3%                     | 98,326      | 24.8%                     | 0.508               | 0.012                   |
| Any NSAID                                                                 | 27,104          | 29.5%                     | 117,501     | 29.6%                     | -0.064              | -0.001                  |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 1.9             | 1.5                       | 1.9         | 1.5                       | 0.010               | 0.006                   |

**Table 1g. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 14,745          | 16.1%   | 64,382      | 16.2%   | -0.151              | -0.004                  |
| Any ED Visits**                                                           | 9,927           | 10.8%   | 45,082      | 11.4%   | -0.539              | -0.017                  |
| Any IP Visits**                                                           | 3,262           | 3.6%    | 15,799      | 4.0%    | -0.425              | -0.022                  |
| No AV Visits                                                              | 23,172          | 25.2%   | 104,487     | 26.3%   | -1.070              | -0.024                  |
| 1-3 AV Visits**                                                           | 37,113          | 40.4%   | 153,158     | 38.6%   | 1.860               | 0.038                   |
| >3 AV Visits**                                                            | 31,510          | 34.3%   | 139,439     | 35.1%   | -0.789              | -0.017                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 21,790          | 23.7%   | 70,818      | 17.8%   | 5.903               | 0.146                   |
| Post-Index Insulin Initiation                                             | 10,652          | 11.6%   | 61,292      | 15.4%   | -3.831              | -0.112                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 91,779          | N/A                | 90,927      | N/A                |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Age (Years) <sup>*</sup>             | 52.2            | 8.7                | 52.2        | 8.8                | -0.013              | -0.001                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 18,793          | 20.5%              | 18,456      | 20.3%              | 0.179               | 0.004                   |
| 45-54 years                               | 31,987          | 34.9%              | 31,840      | 35.0%              | -0.165              | -0.003                  |
| 55-64 years                               | 40,999          | 44.7%              | 40,632      | 44.7%              | -0.014              | -0.000                  |
| 65-74 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| ≥ 75 years                                | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 43,921          | 47.9%              | 43,592      | 47.9%              | -0.086              | -0.002                  |
| Male                                      | 47,858          | 52.1%              | 47,336      | 52.1%              | 0.086               | 0.002                   |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 593             | 0.6%               | 635         | 0.7%               | -0.052              | -0.006                  |
| Asian                                     | 2,383           | 2.6%               | 3,076       | 3.4%               | -0.787              | -0.047                  |
| Black or African American                 | 9,610           | 10.5%              | 11,352      | 12.5%              | -2.014              | -0.065                  |
| Multi-racial                              | 691             | 0.8%               | 648         | 0.7%               | 0.041               | 0.005                   |
| Native Hawaiian or Other Pacific Islander | 335             | 0.4%               | 281         | 0.3%               | 0.056               | 0.010                   |
| Unknown                                   | 42,561          | 46.4%              | 42,740      | 47.0%              | -0.631              | -0.016                  |
| White                                     | 35,606          | 38.8%              | 32,196      | 35.4%              | 3.387               | 0.080                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 7,898           | 8.6%               | 8,627       | 9.5%               | -0.882              | -0.032                  |
| No                                        | 45,142          | 49.2%              | 44,406      | 48.8%              | 0.348               | 0.010                   |
| Unknown                                   | 38,739          | 42.2%              | 37,895      | 41.7%              | 0.533               | 0.018                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 2,728           | 3.0%               | 2,688       | 3.0%               | 0.016               | 0.001                   |
| 2014                                      | 11,262          | 12.3%              | 11,046      | 12.1%              | 0.123               | 0.004                   |
| 2015                                      | 19,900          | 21.7%              | 19,202      | 21.1%              | 0.564               | 0.014                   |
| 2016                                      | 17,442          | 19.0%              | 17,290      | 19.0%              | -0.010              | -0.000                  |
| 2017                                      | 16,576          | 18.1%              | 16,649      | 18.3%              | -0.249              | -0.007                  |
| 2018                                      | 9,116           | 9.9%               | 9,186       | 10.1%              | -0.170              | -0.006                  |
| 2019+                                     | 14,755          | 16.1%              | 14,867      | 16.4%              | -0.274              | -0.008                  |

**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

|                                                                                                      | Medical Product |                           |             |                           | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent                   | Number      | Percent                   |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                           |             |                           |                     |                         |
| Retinopathy*                                                                                         | 7,577           | 8.3%                      | 7,521       | 8.3%                      | -0.016              | -0.001                  |
| Nephropathy*                                                                                         | 5,607           | 6.1%                      | 5,610       | 6.2%                      | -0.061              | -0.003                  |
| Neuropathy*                                                                                          | 19,992          | 21.8%                     | 19,825      | 21.8%                     | -0.020              | -0.000                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 238             | 0.3%                      | 285         | 0.3%                      | -0.055              | -0.010                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 51,318          | 55.9%                     | 50,689      | 55.7%                     | 0.168               | 0.003                   |
| Hypertension*                                                                                        | 67,886          | 74.0%                     | 67,113      | 73.8%                     | 0.157               | 0.004                   |
| Dyslipidemia*                                                                                        | 64,890          | 70.7%                     | 63,980      | 70.4%                     | 0.339               | 0.008                   |
| Coronary Artery Disease*                                                                             | 11,795          | 12.9%                     | 11,750      | 12.9%                     | -0.071              | -0.002                  |
| Cerebrovascular Disease*                                                                             | 2,801           | 3.1%                      | 2,822       | 3.1%                      | -0.051              | -0.003                  |
| Peripheral Vascular Disease*                                                                         | 5,753           | 6.3%                      | 5,718       | 6.3%                      | -0.020              | -0.001                  |
| Congestive Heart Failure*                                                                            | 4,877           | 5.3%                      | 4,883       | 5.4%                      | -0.056              | -0.003                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 11,304          | 12.3%                     | 11,247      | 12.4%                     | -0.052              | -0.002                  |
| Depression*                                                                                          | 18,605          | 20.3%                     | 18,487      | 20.3%                     | -0.060              | -0.002                  |
| Obesity*                                                                                             | 34,685          | 37.8%                     | 34,276      | 37.7%                     | 0.096               | 0.002                   |
| Cancer (Excluding NMSC)*                                                                             | 7,615           | 8.3%                      | 7,554       | 8.3%                      | -0.011              | -0.000                  |
| Hepatitis C Infection                                                                                | 1,194           | 1.3%                      | 1,277       | 1.4%                      | -0.103              | -0.009                  |
| History of Kidney Stones*                                                                            | 2,740           | 3.0%                      | 2,739       | 3.0%                      | -0.026              | -0.002                  |
| Sickle Cell Disease                                                                                  | 28              | 0.0%                      | 34          | 0.0%                      | -0.007              | -0.004                  |
| Smoking*                                                                                             | 17,520          | 19.1%                     | 17,471      | 19.2%                     | -0.125              | -0.003                  |
| Alcohol Use*                                                                                         | 2,312           | 2.5%                      | 2,337       | 2.6%                      | -0.051              | -0.003                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 39              | 0.0%                      | 63          | 0.1%                      | -0.027              | -0.011                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                           |             |                           |                     |                         |
| Metformin*                                                                                           | 85,020          | 92.6%                     | 84,212      | 92.6%                     | 0.021               | 0.001                   |
| Sulfonylureas*                                                                                       | 40,334          | 43.9%                     | 40,127      | 44.1%                     | -0.184              | -0.004                  |
| Thiazolidinediones*                                                                                  | 8,223           | 9.0%                      | 8,052       | 8.9%                      | 0.105               | 0.004                   |
| Alpha Glucosidase Inhibitor                                                                          | 424             | 0.5%                      | 367         | 0.4%                      | 0.059               | 0.009                   |
| Meglitinides                                                                                         | 778             | 0.8%                      | 670         | 0.7%                      | 0.111               | 0.013                   |
|                                                                                                      | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.5             | 0.6                       | 1.5         | 0.6                       | 0.001               | 0.002                   |

**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

|                                                   | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                   | Canagliflozin   |         | Sitagliptin |         |                     |                         |
|                                                   | Number          | Percent | Number      | Percent | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes               |                 |         |             |         |                     |                         |
| 1                                                 | 53,040          | 57.8%   | 52,507      | 57.7%   | 0.044               | 0.001                   |
| 2                                                 | 34,568          | 37.7%   | 34,406      | 37.8%   | -0.174              | -0.004                  |
| 3                                                 | 4,079           | 4.4%    | 3,950       | 4.3%    | 0.101               | 0.005                   |
| 4+                                                | 91              | 0.1%    | 65          | 0.1%    | 0.028               | 0.010                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                 | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| DPP-4 Inhibitors                                  | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                 | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                           | 0               | 0.0%    | 0           | 0.0%    | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin             | 23,241          | 25.3%   | 21,582      | 23.7%   | 1.587               | 0.037                   |
| Short- and Rapid-Acting Insulin                   | 12,015          | 13.1%   | 9,018       | 9.9%    | 3.174               | 0.100                   |
| Combination Insulins                              | 3,074           | 3.3%    | 2,519       | 2.8%    | 0.579               | 0.034                   |
| Any Insulin*                                      | 26,649          | 29.0%   | 25,859      | 28.4%   | 0.597               | 0.013                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis) | 45,990          | 50.1%   | 45,480      | 50.0%   | 0.092               | 0.002                   |
| Angiotensin Receptor Blockers (ARBs)*             | 20,341          | 22.2%   | 20,124      | 22.1%   | 0.031               | 0.001                   |
| Beta Blockers*                                    | 25,517          | 27.8%   | 25,279      | 27.8%   | 0.002               | 0.000                   |
| Calcium Channel Blockers*                         | 18,781          | 20.5%   | 18,648      | 20.5%   | -0.046              | -0.001                  |
| Statins*                                          | 60,056          | 65.4%   | 59,347      | 65.3%   | 0.167               | 0.004                   |
| Loop Diuretics                                    | 9,415           | 10.3%   | 8,687       | 9.6%    | 0.704               | 0.024                   |
| Other Diuretics                                   | 28,156          | 30.7%   | 28,207      | 31.0%   | -0.344              | -0.007                  |
| Any Diuretic*                                     | 33,868          | 36.9%   | 33,458      | 36.8%   | 0.106               | 0.002                   |
| Aspirin, Acetaminophen or Other NSAIDs*           | 51,150          | 55.7%   | 50,723      | 55.8%   | -0.053              | -0.001                  |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |
|                                                   |                 |         |             |         |                     |                         |

**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                    | Number          | Percent            | Number      | Percent            |                     |                         |
| Number of AV Visits (Categorical)*                                 |                 |                    |             |                    |                     |                         |
| 0-4                                                                | 14,042          | 15.3%              | 13,896      | 15.3%              | 0.018               | 0.000                   |
| 5-10                                                               | 29,510          | 32.2%              | 29,175      | 32.1%              | 0.067               | 0.001                   |
| 11-15                                                              | 15,473          | 16.9%              | 15,306      | 16.8%              | 0.026               | 0.001                   |
| 16+                                                                | 32,754          | 35.7%              | 32,550      | 35.8%              | -0.110              | -0.002                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.8             | 2.0                | 0.8         | 2.1                | -0.020              | -0.010                  |
| Number of ED Visits (Categorical)*                                 |                 |                    |             |                    |                     |                         |
| 0                                                                  | 60,765          | 66.2%              | 60,036      | 66.0%              | 0.182               | 0.004                   |
| 1                                                                  | 16,513          | 18.0%              | 16,387      | 18.0%              | -0.030              | -0.001                  |
| 2+                                                                 | 14,501          | 15.8%              | 14,505      | 16.0%              | -0.152              | -0.004                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.2         | 0.6                | -0.009              | -0.015                  |
| Number of IP Visits (Categorical)*                                 |                 |                    |             |                    |                     |                         |
| 0                                                                  | 81,552          | 88.9%              | 80,727      | 88.8%              | 0.075               | 0.002                   |
| 1                                                                  | 7,838           | 8.5%               | 7,794       | 8.6%               | -0.032              | -0.001                  |
| 2+                                                                 | 2,389           | 2.6%               | 2,407       | 2.6%               | -0.044              | -0.003                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 0.9             | 1.3                | 1.0         | 1.4                | -0.009              | -0.007                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   |                 |                    |             |                    |                     |                         |
| 0                                                                  | 49,671          | 54.1%              | 49,199      | 54.1%              | 0.013               | 0.000                   |
| 1                                                                  | 19,419          | 21.2%              | 19,142      | 21.1%              | 0.106               | 0.003                   |
| 2                                                                  | 11,328          | 12.3%              | 11,244      | 12.4%              | -0.023              | -0.001                  |
| 3+                                                                 | 11,361          | 12.4%              | 11,343      | 12.5%              | -0.096              | -0.003                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.0                | -0.000              | -0.008                  |

**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 3,199           | 3.5%               | 3,194       | 3.5%               | -0.027              | -0.002                  |
| <0.25                                                | 88,580          | 96.5%              | 87,733      | 96.5%              | 0.027               | 0.002                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.0             | 1.7                | 1.0         | 1.8                | -0.027              | -0.016                  |
| Combined Comorbidity Score Categories *              |                 |                    |             |                    |                     |                         |
| <1                                                   | 43,591          | 47.5%              | 42,968      | 47.3%              | 0.240               | 0.005                   |
| 1                                                    | 21,895          | 23.9%              | 21,711      | 23.9%              | -0.022              | -0.001                  |
| 2                                                    | 12,020          | 13.1%              | 11,971      | 13.2%              | -0.069              | -0.002                  |
| 3+                                                   | 14,273          | 15.6%              | 14,276      | 15.7%              | -0.149              | -0.004                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 9,188           | 10.0%              | 9,276       | 10.2%              | -0.190              | -0.006                  |
| Nephropathy **                                       | 7,417           | 8.1%               | 7,560       | 8.3%               | -0.233              | -0.009                  |
| Neuropathy **                                        | 23,164          | 25.2%              | 23,061      | 25.4%              | -0.123              | -0.003                  |
| Any IPP or ED Hypoglycemia                           | 88              | 0.1%               | 102         | 0.1%               | -0.016              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                     | 30,533          | 33.3%              | 30,894      | 34.0%              | -0.708              | -0.015                  |
| Frailty Indicators **                                | 12,057          | 13.1%              | 11,594      | 12.8%              | 0.386               | 0.012                   |
| Pneumococcal Vaccine **                              | 20,719          | 22.6%              | 20,762      | 22.8%              | -0.259              | -0.006                  |
| GLP-1RA or GIP/GLP-1RA **                            | 2,840           | 3.1%               | 1,723       | 1.9%               | 1.199               | 0.077                   |
| Insulin Initiation **                                | 1,971           | 2.1%               | 2,647       | 2.9%               | -0.764              | -0.049                  |
| Insulin or GLP-1RA                                   | 4,664           | 5.1%               | 4,251       | 4.7%               | 0.407               | 0.019                   |
| Influenza Vaccine **                                 | 33,708          | 36.7%              | 33,508      | 36.9%              | -0.125              | -0.003                  |
| Preventive Healthcare **                             | 84,241          | 91.8%              | 83,278      | 91.6%              | 0.200               | 0.007                   |
| Any HbA1c Test **                                    | 41,087          | 44.8%              | 39,565      | 43.5%              | 1.255               | 0.025                   |
| ACEis                                                | 37,474          | 40.8%              | 38,032      | 41.8%              | -0.996              | -0.020                  |
| ARBs                                                 | 18,132          | 19.8%              | 18,266      | 20.1%              | -0.333              | -0.008                  |
| Beta Blockers                                        | 21,672          | 23.6%              | 21,883      | 24.1%              | -0.453              | -0.011                  |
| Calcium Channel Blockers                             | 15,669          | 17.1%              | 16,094      | 17.7%              | -0.628              | -0.017                  |
| Statins                                              | 52,248          | 56.9%              | 52,707      | 58.0%              | -1.038              | -0.021                  |
| Any Diuretics                                        | 27,123          | 29.6%              | 27,827      | 30.6%              | -1.051              | -0.023                  |
| Any NSAID                                            | 31,190          | 34.0%              | 31,353      | 34.5%              | -0.498              | -0.011                  |



**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

|                                                                           | Medical Product |                           |               |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|---------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin   |                           | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation        | Mean          | Standard Deviation        |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.4                       | 2.3           | 1.4                       | -0.050              | -0.035                  |
|                                                                           | <b>Number</b>   | <b>Percent</b>            | <b>Number</b> | <b>Percent</b>            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 7,518           | 8.2%                      | 9,010         | 9.9%                      | -1.718              | -0.060                  |
| Any ED Visits**                                                           | 11,450          | 12.5%                     | 11,681        | 12.8%                     | -0.371              | -0.011                  |
| Any IP Visits**                                                           | 3,435           | 3.7%                      | 4,160         | 4.6%                      | -0.832              | -0.042                  |
| No AV Visits                                                              | 10,078          | 11.0%                     | 9,335         | 10.3%                     | 0.715               | 0.023                   |
| 1-3 AV Visits**                                                           | 42,077          | 45.8%                     | 40,936        | 45.0%                     | 0.826               | 0.017                   |
| >3 AV Visits**                                                            | 39,624          | 43.2%                     | 40,657        | 44.7%                     | -1.540              | -0.032                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                           |               |                           |                     |                         |
| Retinopathy**                                                             | 10,255          | 11.2%                     | 10,430        | 11.5%                     | -0.297              | -0.009                  |
| Nephropathy**                                                             | 8,718           | 9.5%                      | 8,973         | 9.9%                      | -0.370              | -0.013                  |
| Neuropathy**                                                              | 25,419          | 27.7%                     | 25,277        | 27.8%                     | -0.103              | -0.002                  |
| Any IPP or ED Hypoglycemia                                                | 94              | 0.1%                      | 104           | 0.1%                      | -0.012              | -0.004                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 24,493          | 26.7%                     | 24,428        | 26.9%                     | -0.178              | -0.004                  |
| Frailty Indicators**                                                      | 12,765          | 13.9%                     | 12,448        | 13.7%                     | 0.218               | 0.006                   |
| Pneumococcal Vaccine**                                                    | 22,093          | 24.1%                     | 22,113        | 24.3%                     | -0.248              | -0.006                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,243           | 2.4%                      | 1,870         | 2.1%                      | 0.387               | 0.026                   |
| Insulin Initiation**                                                      | 19,036          | 20.7%                     | 17,099        | 18.8%                     | 1.936               | 0.049                   |
| Insulin or GLP-1RA Initiation                                             | 20,566          | 22.4%                     | 18,376        | 20.2%                     | 2.199               | 0.054                   |
| Influenza Vaccine**                                                       | 33,765          | 36.8%                     | 33,509        | 36.9%                     | -0.063              | -0.001                  |
| Preventive Healthcare**                                                   | 83,600          | 91.1%                     | 82,568        | 90.8%                     | 0.282               | 0.010                   |
| Any HbA1c Test**                                                          | 44,196          | 48.2%                     | 42,822        | 47.1%                     | 1.060               | 0.021                   |
| ACEi                                                                      | 34,221          | 37.3%                     | 34,638        | 38.1%                     | -0.808              | -0.017                  |
| ARB                                                                       | 16,907          | 18.4%                     | 17,056        | 18.8%                     | -0.337              | -0.009                  |
| Beta Blockers                                                             | 20,411          | 22.2%                     | 20,470        | 22.5%                     | -0.273              | -0.007                  |
| Calcium Channel Blockers                                                  | 14,584          | 15.9%                     | 14,916        | 16.4%                     | -0.514              | -0.014                  |
| Statins                                                                   | 48,516          | 52.9%                     | 48,222        | 53.0%                     | -0.172              | -0.003                  |
| Any Diuretics                                                             | 24,838          | 27.1%                     | 25,592        | 28.1%                     | -1.083              | -0.024                  |
| Any NSAID                                                                 | 28,841          | 31.4%                     | 28,332        | 31.2%                     | 0.266               | 0.006                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b>   | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.1             | 1.5                       | 2.1           | 1.5                       | -0.029              | -0.020                  |

**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 15,307          | 16.7%                     | 14,917      | 16.4%                     | 0.273               | 0.007                   |
| Any ED Visits**                                                           | 10,527          | 11.5%                     | 10,749      | 11.8%                     | -0.352              | -0.011                  |
| Any IP Visits**                                                           | 3,331           | 3.6%                      | 3,443       | 3.8%                      | -0.157              | -0.008                  |
| No AV Visits                                                              | 18,047          | 19.7%                     | 18,176      | 20.0%                     | -0.327              | -0.008                  |
| 1-3 AV Visits**                                                           | 40,031          | 43.6%                     | 38,880      | 42.8%                     | 0.857               | 0.017                   |
| >3 AV Visits**                                                            | 33,701          | 36.7%                     | 33,871      | 37.3%                     | -0.531              | -0.011                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 11,256          | 12.3%                     | 11,481      | 12.6%                     | -0.362              | -0.011                  |
| Nephropathy**                                                             | 9,888           | 10.8%                     | 10,214      | 11.2%                     | -0.459              | -0.015                  |
| Neuropathy**                                                              | 27,511          | 30.0%                     | 27,228      | 29.9%                     | 0.030               | 0.001                   |
| Any IPP or ED Hypoglycemia                                                | 95              | 0.1%                      | 99          | 0.1%                      | -0.005              | -0.002                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 21,768          | 23.7%                     | 22,071      | 24.3%                     | -0.555              | -0.013                  |
| Frailty Indicators**                                                      | 13,434          | 14.6%                     | 13,155      | 14.5%                     | 0.170               | 0.005                   |
| Pneumococcal Vaccine**                                                    | 23,368          | 25.5%                     | 23,360      | 25.7%                     | -0.230              | -0.005                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 3,662           | 4.0%                      | 2,728       | 3.0%                      | 0.990               | 0.054                   |
| Insulin Initiation**                                                      | 3,799           | 4.1%                      | 4,661       | 5.1%                      | -0.987              | -0.047                  |
| Insulin or GLP-1RA Initiation                                             | 7,192           | 7.8%                      | 7,139       | 7.9%                      | -0.015              | -0.001                  |
| Influenza Vaccine**                                                       | 33,519          | 36.5%                     | 33,260      | 36.6%                     | -0.058              | -0.001                  |
| Preventive Healthcare**                                                   | 82,194          | 89.6%                     | 81,228      | 89.3%                     | 0.223               | 0.007                   |
| Any HbA1c Test**                                                          | 40,112          | 43.7%                     | 38,834      | 42.7%                     | 0.996               | 0.020                   |
| ACEi                                                                      | 31,829          | 34.7%                     | 32,113      | 35.3%                     | -0.637              | -0.013                  |
| ARB                                                                       | 16,005          | 17.4%                     | 16,077      | 17.7%                     | -0.242              | -0.006                  |
| Beta Blockers                                                             | 19,290          | 21.0%                     | 19,393      | 21.3%                     | -0.310              | -0.008                  |
| Calcium Channel Blockers                                                  | 13,683          | 14.9%                     | 14,127      | 15.5%                     | -0.628              | -0.018                  |
| Statins                                                                   | 45,637          | 49.7%                     | 45,206      | 49.7%                     | 0.008               | 0.000                   |
| Any Diuretics                                                             | 23,191          | 25.3%                     | 23,934      | 26.3%                     | -1.054              | -0.024                  |
| Any NSAID                                                                 | 27,101          | 29.5%                     | 26,533      | 29.2%                     | 0.348               | 0.008                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 1.9             | 1.5                       | 2.0         | 1.5                       | -0.025              | -0.016                  |

**Table 1h. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: <65 Years**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 14,743          | 16.1%   | 14,992      | 16.5%   | -0.424              | -0.011                  |
| Any ED Visits**                                                           | 9,926           | 10.8%   | 10,099      | 11.1%   | -0.292              | -0.009                  |
| Any IP Visits**                                                           | 3,261           | 3.6%    | 3,387       | 3.7%    | -0.172              | -0.009                  |
| No AV Visits                                                              | 23,167          | 25.2%   | 23,261      | 25.6%   | -0.339              | -0.008                  |
| 1-3 AV Visits**                                                           | 37,108          | 40.4%   | 36,114      | 39.7%   | 0.714               | 0.015                   |
| >3 AV Visits**                                                            | 31,504          | 34.3%   | 31,553      | 34.7%   | -0.375              | -0.008                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 21,787          | 23.7%   | 16,699      | 18.4%   | 5.373               | 0.132                   |
| Post-Index Insulin Initiation                                             | 10,650          | 11.6%   | 12,541      | 13.8%   | -2.189              | -0.066                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulintropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Unique patients                           | 67,216          | 100.0%             | 523,928     | 100.0%             |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 72.3            | 5.2                | 74.7        | 6.6                | -2.378              | -0.398                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 45-54 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 55-64 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 65-74 years                               | 49,742          | 74.0%              | 307,435     | 58.7%              | 15.324              | 0.329                   |
| ≥ 75 years                                | 17,474          | 26.0%              | 216,493     | 41.3%              | -15.324             | -0.329                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 32,169          | 47.9%              | 288,475     | 55.1%              | -7.201              | -0.144                  |
| Male                                      | 35,047          | 52.1%              | 235,453     | 44.9%              | 7.201               | 0.144                   |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 248             | 0.4%               | 1,900       | 0.4%               | 0.006               | 0.001                   |
| Asian                                     | 1,971           | 2.9%               | 24,123      | 4.6%               | -1.672              | -0.088                  |
| Black or African American                 | 5,361           | 8.0%               | 56,408      | 10.8%              | -2.791              | -0.096                  |
| Multi-racial                              | 67              | 0.1%               | 542         | 0.1%               | -0.004              | -0.001                  |
| Native Hawaiian or Other Pacific Islander | 214             | 0.3%               | 1,625       | 0.3%               | 0.008               | 0.001                   |
| Unknown                                   | 7,025           | 10.5%              | 60,452      | 11.5%              | -1.087              | -0.035                  |
| White                                     | 52,330          | 77.9%              | 378,878     | 72.3%              | 5.539               | 0.128                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 2,070           | 3.1%               | 22,940      | 4.4%               | -1.299              | -0.069                  |
| No                                        | 58,756          | 87.4%              | 444,271     | 84.8%              | 2.618               | 0.076                   |
| Unknown                                   | 6,390           | 9.5%               | 56,717      | 10.8%              | -1.319              | -0.044                  |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 1,301           | 1.9%               | 45,854      | 8.8%               | -6.816              | -0.307                  |
| 2014                                      | 8,516           | 12.7%              | 61,490      | 11.7%              | 0.933               | 0.029                   |
| 2015                                      | 16,887          | 25.1%              | 61,080      | 11.7%              | 13.465              | 0.353                   |
| 2016                                      | 13,801          | 20.5%              | 59,177      | 11.3%              | 9.237               | 0.255                   |
| 2017                                      | 9,539           | 14.2%              | 57,509      | 11.0%              | 3.215               | 0.097                   |
| 2018                                      | 5,413           | 8.1%               | 51,089      | 9.8%               | -1.698              | -0.060                  |
| 2019+                                     | 11,759          | 17.5%              | 187,729     | 35.8%              | -18.337             | -0.424                  |

**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

|                                                                                                      | Medical Product |                           |             |                           | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent                   | Number      | Percent                   |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                           |             |                           |                     |                         |
| Retinopathy*                                                                                         | 9,744           | 14.5%                     | 79,634      | 15.2%                     | -0.703              | -0.020                  |
| Nephropathy*                                                                                         | 7,119           | 10.6%                     | 75,601      | 14.4%                     | -3.838              | -0.116                  |
| Neuropathy*                                                                                          | 17,573          | 26.1%                     | 143,448     | 27.4%                     | -1.235              | -0.028                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 220             | 0.3%                      | 3,559       | 0.7%                      | -0.352              | -0.050                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 33,196          | 49.4%                     | 244,064     | 46.6%                     | 2.804               | 0.056                   |
| Hypertension*                                                                                        | 61,006          | 90.8%                     | 476,463     | 90.9%                     | -0.179              | -0.006                  |
| Dyslipidemia*                                                                                        | 58,862          | 87.6%                     | 452,107     | 86.3%                     | 1.280               | 0.038                   |
| Coronary Artery Disease*                                                                             | 20,327          | 30.2%                     | 162,951     | 31.1%                     | -0.860              | -0.019                  |
| Cerebrovascular Disease*                                                                             | 3,864           | 5.7%                      | 44,775      | 8.5%                      | -2.797              | -0.109                  |
| Peripheral Vascular Disease*                                                                         | 10,691          | 15.9%                     | 104,518     | 19.9%                     | -4.043              | -0.106                  |
| Congestive Heart Failure*                                                                            | 7,081           | 10.5%                     | 71,911      | 13.7%                     | -3.191              | -0.098                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 10,597          | 15.8%                     | 90,854      | 17.3%                     | -1.575              | -0.042                  |
| Depression*                                                                                          | 10,002          | 14.9%                     | 91,548      | 17.5%                     | -2.593              | -0.070                  |
| Obesity*                                                                                             | 21,673          | 32.2%                     | 140,439     | 26.8%                     | 5.439               | 0.119                   |
| Cancer (Excluding NMSC)*                                                                             | 15,434          | 23.0%                     | 128,381     | 24.5%                     | -1.542              | -0.036                  |
| Hepatitis C Infection                                                                                | 355             | 0.5%                      | 3,157       | 0.6%                      | -0.074              | -0.010                  |
| History of Kidney Stones*                                                                            | 2,770           | 4.1%                      | 23,050      | 4.4%                      | -0.278              | -0.014                  |
| Sickle Cell Disease                                                                                  | 13              | 0.0%                      | 128         | 0.0%                      | -0.005              | -0.003                  |
| Smoking*                                                                                             | 11,753          | 17.5%                     | 98,598      | 18.8%                     | -1.334              | -0.035                  |
| Alcohol Use*                                                                                         | 1,016           | 1.5%                      | 8,177       | 1.6%                      | -0.049              | -0.004                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 89              | 0.1%                      | 912         | 0.2%                      | -0.042              | -0.011                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                           |             |                           |                     |                         |
| Metformin*                                                                                           | 59,831          | 89.0%                     | 454,010     | 86.7%                     | 2.358               | 0.072                   |
| Sulfonylureas*                                                                                       | 36,171          | 53.8%                     | 266,512     | 50.9%                     | 2.945               | 0.059                   |
| Thiazolidinediones*                                                                                  | 8,370           | 12.5%                     | 44,331      | 8.5%                      | 3.991               | 0.131                   |
| Alpha Glucosidase Inhibitor                                                                          | 525             | 0.8%                      | 3,068       | 0.6%                      | 0.195               | 0.024                   |
| Meglitinides                                                                                         | 1,291           | 1.9%                      | 9,123       | 1.7%                      | 0.179               | 0.013                   |
|                                                                                                      | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.6             | 0.6                       | 1.5         | 0.6                       | 0.097               | 0.159                   |

**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 33,212          | 49.4%              | 294,697     | 56.2%              | -6.837              | -0.137                  |
| 2                                                                                             | 29,179          | 43.4%              | 205,992     | 39.3%              | 4.094               | 0.083                   |
| 3                                                                                             | 4,686           | 7.0%               | 22,605      | 4.3%               | 2.657               | 0.115                   |
| 4+                                                                                            | 139             | 0.2%               | 634         | 0.1%               | 0.086               | 0.021                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 14,679          | 21.8%              | 60,837      | 11.6%              | 10.227              | 0.277                   |
| Short- and Rapid-Acting Insulin                                                               | 6,031           | 9.0%               | 23,607      | 4.5%               | 4.467               | 0.179                   |
| Combination Insulins                                                                          | 2,106           | 3.1%               | 7,181       | 1.4%               | 1.763               | 0.119                   |
| Any Insulin*                                                                                  | 16,808          | 25.0%              | 76,305      | 14.6%              | 10.442              | 0.264                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 32,534          | 48.4%              | 241,284     | 46.1%              | 2.349               | 0.047                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 23,043          | 34.3%              | 174,818     | 33.4%              | 0.915               | 0.019                   |
| Beta Blockers*                                                                                | 29,902          | 44.5%              | 235,911     | 45.0%              | -0.541              | -0.011                  |
| Calcium Channel Blockers*                                                                     | 22,375          | 33.3%              | 186,833     | 35.7%              | -2.372              | -0.050                  |
| Statins*                                                                                      | 52,448          | 78.0%              | 401,496     | 76.6%              | 1.397               | 0.033                   |
| Loop Diuretics                                                                                | 11,073          | 16.5%              | 92,029      | 17.6%              | -1.091              | -0.029                  |
| Other Diuretics                                                                               | 26,437          | 39.3%              | 194,116     | 37.1%              | 2.281               | 0.047                   |
| Any Diuretic*                                                                                 | 33,319          | 49.6%              | 252,893     | 48.3%              | 1.301               | 0.026                   |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 28,747          | 42.8%              | 213,160     | 40.7%              | 2.083               | 0.042                   |
|                                                                                               |                 |                    |             |                    |                     |                         |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | 3.3             | 1.4                | 3.3         | 1.4                | 0.051               | 0.037                   |
|                                                                                               |                 |                    |             |                    |                     |                         |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Influenza Vaccine*                                                                            | 39,075          | 58.1%              | 298,889     | 57.0%              | 1.086               | 0.022                   |
| Pneumococcal Vaccine (Ever)*                                                                  | 36,044          | 53.6%              | 280,625     | 53.6%              | 0.062               | 0.001                   |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                    |             |                    |                     |                         |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | 19.1            | 15.4               | 19.5        | 16.3               | -0.404              | -0.025                  |

**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 4,927           | 7.3%               | 44,655      | 8.5%               | -1.193              | -0.044                  |
| 5-10                                                               | 17,126          | 25.5%              | 128,795     | 24.6%              | 0.896               | 0.021                   |
| 11-15                                                              | 13,060          | 19.4%              | 96,851      | 18.5%              | 0.944               | 0.024                   |
| 16+                                                                | 32,103          | 47.8%              | 253,627     | 48.4%              | -0.648              | -0.013                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.4             | 1.0                | 0.5         | 1.3                | -0.122              | -0.105                  |
| Number of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 51,330          | 76.4%              | 374,948     | 71.6%              | 4.801               | 0.110                   |
| 1                                                                  | 10,416          | 15.5%              | 91,789      | 17.5%              | -2.023              | -0.055                  |
| 2+                                                                 | 5,470           | 8.1%               | 57,191      | 10.9%              | -2.778              | -0.095                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                | 0.3         | 0.7                | -0.108              | -0.174                  |
| Number of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 58,855          | 87.6%              | 426,450     | 81.4%              | 6.166               | 0.171                   |
| 1                                                                  | 6,517           | 9.7%               | 69,589      | 13.3%              | -3.587              | -0.113                  |
| 2+                                                                 | 1,844           | 2.7%               | 27,889      | 5.3%               | -2.580              | -0.131                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.7             | 1.7                | 2.0         | 1.9                | -0.244              | -0.134                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 21,072          | 31.3%              | 150,171     | 28.7%              | 2.687               | 0.059                   |
| 1                                                                  | 14,812          | 22.0%              | 103,935     | 19.8%              | 2.199               | 0.054                   |
| 2                                                                  | 13,049          | 19.4%              | 100,063     | 19.1%              | 0.315               | 0.008                   |
| 3+                                                                 | 18,283          | 27.2%              | 169,759     | 32.4%              | -5.201              | -0.114                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.1                | -0.012              | -0.235                  |

**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 3,216           | 4.8%               | 50,502      | 9.6%               | -4.855              | -0.188                  |
| <0.25                                                | 64,000          | 95.2%              | 473,426     | 90.4%              | 4.855               | 0.188                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.5             | 2.3                | 2.1         | 2.8                | -0.600              | -0.237                  |
| Combined Comorbidity Score Categories *              | Number          | Percent            | Number      | Percent            |                     |                         |
| <1                                                   | 27,070          | 40.3%              | 174,515     | 33.3%              | 6.964               | 0.145                   |
| 1                                                    | 13,960          | 20.8%              | 98,273      | 18.8%              | 2.012               | 0.051                   |
| 2                                                    | 9,193           | 13.7%              | 72,002      | 13.7%              | -0.066              | -0.002                  |
| 3+                                                   | 16,993          | 25.3%              | 179,138     | 34.2%              | -8.910              | -0.196                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 11,237          | 16.7%              | 91,953      | 17.6%              | -0.833              | -0.022                  |
| Nephropathy **                                       | 9,421           | 14.0%              | 99,937      | 19.1%              | -5.059              | -0.136                  |
| Neuropathy **                                        | 20,076          | 29.9%              | 162,587     | 31.0%              | -1.164              | -0.025                  |
| Any IPP or ED Hypoglycemia                           | 77              | 0.1%               | 1,026       | 0.2%               | -0.081              | -0.021                  |
| Any IPP, ED or Lab Hyperglycemia                     | 21,056          | 31.3%              | 156,653     | 29.9%              | 1.426               | 0.031                   |
| Frailty Indicators **                                | 14,131          | 21.0%              | 134,549     | 25.7%              | -4.658              | -0.110                  |
| Pneumococcal Vaccine **                              | 37,831          | 56.3%              | 292,708     | 55.9%              | 0.415               | 0.008                   |
| GLP-1RA or GIP/GLP-1RA **                            | 1,171           | 1.7%               | 5,605       | 1.1%               | 0.672               | 0.057                   |
| Insulin Initiation **                                | 1,588           | 2.4%               | 17,327      | 3.3%               | -0.945              | -0.057                  |
| Insulin or GLP-1RA                                   | 2,680           | 4.0%               | 22,463      | 4.3%               | -0.300              | -0.015                  |
| Influenza Vaccine **                                 | 39,329          | 58.5%              | 301,014     | 57.5%              | 1.058               | 0.021                   |
| Preventive Healthcare **                             | 64,247          | 95.6%              | 495,241     | 94.5%              | 1.058               | 0.049                   |
| Any HbA1c Test **                                    | 33,669          | 50.1%              | 247,221     | 47.2%              | 2.905               | 0.058                   |
| ACEis                                                | 26,930          | 40.1%              | 199,715     | 38.1%              | 1.946               | 0.040                   |
| ARBs                                                 | 20,473          | 30.5%              | 154,377     | 29.5%              | 0.993               | 0.022                   |
| Beta Blockers                                        | 26,162          | 38.9%              | 209,853     | 40.1%              | -1.132              | -0.023                  |
| Calcium Channel Blockers                             | 18,955          | 28.2%              | 160,909     | 30.7%              | -2.512              | -0.055                  |
| Statins                                              | 45,396          | 67.5%              | 350,230     | 66.8%              | 0.691               | 0.015                   |
| Any Diuretics                                        | 26,823          | 39.9%              | 211,475     | 40.4%              | -0.458              | -0.009                  |
| Any NSAID                                            | 15,402          | 22.9%              | 115,424     | 22.0%              | 0.884               | 0.021                   |



**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.7             | 1.4                | 2.7         | 1.4                | 0.004               | 0.003                   |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 4,005           | 6.0%               | 41,665      | 8.0%               | -1.994              | -0.078                  |
| Any ED Visits**                                                           | 5,569           | 8.3%               | 56,640      | 10.8%              | -2.525              | -0.086                  |
| Any IP Visits**                                                           | 3,410           | 5.1%               | 44,571      | 8.5%               | -3.434              | -0.137                  |
| No AV Visits                                                              | 4,482           | 6.7%               | 35,577      | 6.8%               | -0.122              | -0.005                  |
| 1-3 AV Visits**                                                           | 27,120          | 40.3%              | 199,171     | 38.0%              | 2.333               | 0.048                   |
| >3 AV Visits**                                                            | 35,614          | 53.0%              | 289,180     | 55.2%              | -2.210              | -0.044                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 12,431          | 18.5%              | 101,375     | 19.3%              | -0.855              | -0.022                  |
| Nephropathy**                                                             | 11,383          | 16.9%              | 116,458     | 22.2%              | -5.293              | -0.134                  |
| Neuropathy**                                                              | 22,112          | 32.9%              | 177,021     | 33.8%              | -0.890              | -0.019                  |
| Any IPP or ED Hypoglycemia                                                | 77              | 0.1%               | 867         | 0.2%               | -0.051              | -0.014                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 18,545          | 27.6%              | 130,943     | 25.0%              | 2.598               | 0.059                   |
| Frailty Indicators**                                                      | 14,884          | 22.1%              | 142,475     | 27.2%              | -5.050              | -0.117                  |
| Pneumococcal Vaccine**                                                    | 39,457          | 58.7%              | 302,759     | 57.8%              | 0.915               | 0.019                   |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,096           | 1.6%               | 6,309       | 1.2%               | 0.426               | 0.036                   |
| Insulin Initiation**                                                      | 12,995          | 19.3%              | 55,534      | 10.6%              | 8.734               | 0.247                   |
| Insulin or GLP-1RA Initiation                                             | 13,809          | 20.5%              | 60,642      | 11.6%              | 8.970               | 0.246                   |
| Influenza Vaccine**                                                       | 39,173          | 58.3%              | 299,165     | 57.1%              | 1.179               | 0.024                   |
| Preventive Healthcare**                                                   | 63,967          | 95.2%              | 491,848     | 93.9%              | 1.289               | 0.057                   |
| Any HbA1c Test**                                                          | 38,743          | 57.6%              | 283,294     | 54.1%              | 3.568               | 0.072                   |
| ACEi                                                                      | 25,822          | 38.4%              | 187,986     | 35.9%              | 2.536               | 0.053                   |
| ARB                                                                       | 19,890          | 29.6%              | 147,537     | 28.2%              | 1.431               | 0.032                   |
| Beta Blockers                                                             | 25,514          | 38.0%              | 200,632     | 38.3%              | -0.336              | -0.007                  |
| Calcium Channel Blockers                                                  | 18,308          | 27.2%              | 152,572     | 29.1%              | -1.883              | -0.042                  |
| Statins                                                                   | 43,925          | 65.3%              | 332,891     | 63.5%              | 1.811               | 0.038                   |
| Any Diuretics                                                             | 25,510          | 38.0%              | 199,032     | 38.0%              | -0.036              | -0.001                  |
| Any NSAID                                                                 | 14,812          | 22.0%              | 106,381     | 20.3%              | 1.732               | 0.042                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.6             | 1.4                | 2.5         | 1.5                | 0.053               | 0.036                   |

**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 12,091          | 18.0%                     | 90,378      | 17.3%                     | 0.738               | 0.019                   |
| Any ED Visits**                                                           | 5,409           | 8.0%                      | 49,743      | 9.5%                      | -1.447              | -0.051                  |
| Any IP Visits**                                                           | 3,355           | 5.0%                      | 34,989      | 6.7%                      | -1.687              | -0.072                  |
| No AV Visits                                                              | 6,930           | 10.3%                     | 66,349      | 12.7%                     | -2.354              | -0.074                  |
| 1-3 AV Visits**                                                           | 27,328          | 40.7%                     | 200,519     | 38.3%                     | 2.385               | 0.049                   |
| >3 AV Visits**                                                            | 32,958          | 49.0%                     | 257,060     | 49.1%                     | -0.031              | -0.001                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 13,494          | 20.1%                     | 109,663     | 20.9%                     | -0.855              | -0.021                  |
| Nephropathy**                                                             | 13,125          | 19.5%                     | 130,614     | 24.9%                     | -5.403              | -0.130                  |
| Neuropathy**                                                              | 24,009          | 35.7%                     | 189,788     | 36.2%                     | -0.505              | -0.011                  |
| Any IPP or ED Hypoglycemia                                                | 81              | 0.1%                      | 777         | 0.1%                      | -0.028              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 17,187          | 25.6%                     | 119,553     | 22.8%                     | 2.751               | 0.064                   |
| Frailty Indicators**                                                      | 15,614          | 23.2%                     | 149,375     | 28.5%                     | -5.281              | -0.121                  |
| Pneumococcal Vaccine**                                                    | 41,122          | 61.2%                     | 311,966     | 59.5%                     | 1.635               | 0.033                   |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,636           | 2.4%                      | 8,539       | 1.6%                      | 0.804               | 0.057                   |
| Insulin Initiation**                                                      | 3,086           | 4.6%                      | 23,426      | 4.5%                      | 0.120               | 0.006                   |
| Insulin or GLP-1RA Initiation                                             | 4,604           | 6.8%                      | 31,278      | 6.0%                      | 0.880               | 0.036                   |
| Influenza Vaccine**                                                       | 39,286          | 58.4%                     | 297,319     | 56.7%                     | 1.699               | 0.034                   |
| Preventive Healthcare**                                                   | 63,497          | 94.5%                     | 486,085     | 92.8%                     | 1.690               | 0.069                   |
| Any HbA1c Test**                                                          | 36,612          | 54.5%                     | 262,074     | 50.0%                     | 4.448               | 0.089                   |
| ACEi                                                                      | 24,845          | 37.0%                     | 177,990     | 34.0%                     | 2.991               | 0.063                   |
| ARB                                                                       | 19,368          | 28.8%                     | 142,072     | 27.1%                     | 1.698               | 0.038                   |
| Beta Blockers                                                             | 24,887          | 37.0%                     | 193,491     | 36.9%                     | 0.095               | 0.002                   |
| Calcium Channel Blockers                                                  | 17,744          | 26.4%                     | 146,520     | 28.0%                     | -1.567              | -0.035                  |
| Statins                                                                   | 42,910          | 63.8%                     | 318,683     | 60.8%                     | 3.013               | 0.062                   |
| Any Diuretics                                                             | 24,558          | 36.5%                     | 189,994     | 36.3%                     | 0.273               | 0.006                   |
| Any NSAID                                                                 | 14,373          | 21.4%                     | 100,963     | 19.3%                     | 2.113               | 0.053                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.5             | 1.5                       | 2.4         | 1.5                       | 0.086               | 0.058                   |

**Table 1i. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: ≥65 Years**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 12,056          | 17.9%   | 89,128      | 17.0%   | 0.925               | 0.024                   |
| Any ED Visits**                                                           | 5,285           | 7.9%    | 47,550      | 9.1%    | -1.213              | -0.044                  |
| Any IP Visits**                                                           | 3,265           | 4.9%    | 32,969      | 6.3%    | -1.435              | -0.063                  |
| No AV Visits                                                              | 8,866           | 13.2%   | 86,807      | 16.6%   | -3.378              | -0.095                  |
| 1-3 AV Visits**                                                           | 26,248          | 39.1%   | 192,539     | 36.7%   | 2.301               | 0.047                   |
| >3 AV Visits**                                                            | 32,102          | 47.8%   | 244,582     | 46.7%   | 1.077               | 0.022                   |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 12,492          | 18.6%   | 56,739      | 10.8%   | 7.755               | 0.220                   |
| Post-Index Insulin Initiation                                             | 9,363           | 13.9%   | 82,022      | 15.7%   | -1.725              | -0.049                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 67,184          | N/A                | 66,973      | N/A                |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 72.3            | 5.2                | 72.3        | 5.2                | -0.026              | -0.005                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 45-54 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 55-64 years                               | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 65-74 years                               | 49,714          | 74.0%              | 49,459      | 73.8%              | 0.147               | 0.003                   |
| ≥ 75 years                                | 17,470          | 26.0%              | 17,514      | 26.2%              | -0.147              | -0.003                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 32,162          | 47.9%              | 32,030      | 47.8%              | 0.047               | 0.001                   |
| Male                                      | 35,022          | 52.1%              | 34,943      | 52.2%              | -0.047              | -0.001                  |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 248             | 0.4%               | 250         | 0.4%               | -0.004              | -0.001                  |
| Asian                                     | 1,971           | 2.9%               | 2,637       | 3.9%               | -1.004              | -0.055                  |
| Black or African American                 | 5,360           | 8.0%               | 7,139       | 10.7%              | -2.682              | -0.093                  |
| Multi-racial                              | 66              | 0.1%               | 62          | 0.1%               | 0.006               | 0.002                   |
| Native Hawaiian or Other Pacific Islander | 214             | 0.3%               | 230         | 0.3%               | -0.025              | -0.004                  |
| Unknown                                   | 7,009           | 10.4%              | 7,880       | 11.8%              | -1.334              | -0.048                  |
| White                                     | 52,316          | 77.9%              | 48,775      | 72.8%              | 5.042               | 0.123                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 2,067           | 3.1%               | 2,790       | 4.2%               | -1.090              | -0.059                  |
| No                                        | 58,742          | 87.4%              | 57,645      | 86.1%              | 1.363               | 0.051                   |
| Unknown                                   | 6,375           | 9.5%               | 6,538       | 9.8%               | -0.273              | -0.013                  |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 1,299           | 1.9%               | 1,303       | 1.9%               | -0.012              | -0.001                  |
| 2014                                      | 8,512           | 12.7%              | 8,423       | 12.6%              | 0.094               | 0.003                   |
| 2015                                      | 16,866          | 25.1%              | 16,658      | 24.9%              | 0.231               | 0.005                   |
| 2016                                      | 13,799          | 20.5%              | 13,786      | 20.6%              | -0.046              | -0.001                  |
| 2017                                      | 9,537           | 14.2%              | 9,579       | 14.3%              | -0.108              | -0.003                  |
| 2018                                      | 5,413           | 8.1%               | 5,444       | 8.1%               | -0.072              | -0.003                  |
| 2019+                                     | 11,758          | 17.5%              | 11,779      | 17.6%              | -0.087              | -0.002                  |

**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                 |                    |             |                    |                     |                         |
| Retinopathy*                                                                                  | 9,739           | 14.5%              | 9,672       | 14.4%              | 0.054               | 0.002                   |
| Nephropathy*                                                                                  | 7,117           | 10.6%              | 7,162       | 10.7%              | -0.101              | -0.003                  |
| Neuropathy*                                                                                   | 17,562          | 26.1%              | 17,535      | 26.2%              | -0.043              | -0.001                  |
| Any IPP or ED Hypoglycemia Visit                                                              | 220             | 0.3%               | 326         | 0.5%               | -0.160              | -0.025                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 33,174          | 49.4%              | 32,981      | 49.2%              | 0.132               | 0.003                   |
| Hypertension*                                                                                 | 60,978          | 90.8%              | 60,789      | 90.8%              | -0.004              | -0.000                  |
| Dyslipidemia*                                                                                 | 58,834          | 87.6%              | 58,587      | 87.5%              | 0.092               | 0.003                   |
| Coronary Artery Disease*                                                                      | 20,317          | 30.2%              | 20,310      | 30.3%              | -0.085              | -0.002                  |
| Cerebrovascular Disease*                                                                      | 3,862           | 5.7%               | 3,866       | 5.8%               | -0.024              | -0.001                  |
| Peripheral Vascular Disease*                                                                  | 10,687          | 15.9%              | 10,692      | 16.0%              | -0.057              | -0.002                  |
| Congestive Heart Failure*                                                                     | 7,075           | 10.5%              | 7,144       | 10.7%              | -0.137              | -0.004                  |
| Chronic Obstructive Pulmonary Disease*                                                        | 10,591          | 15.8%              | 10,612      | 15.8%              | -0.081              | -0.002                  |
| Depression*                                                                                   | 10,001          | 14.9%              | 9,988       | 14.9%              | -0.028              | -0.001                  |
| Obesity*                                                                                      | 21,654          | 32.2%              | 21,519      | 32.1%              | 0.099               | 0.002                   |
| Cancer (Excluding NMSC)*                                                                      | 15,425          | 23.0%              | 15,389      | 23.0%              | -0.019              | -0.000                  |
| Hepatitis C Infection                                                                         | 354             | 0.5%               | 403         | 0.6%               | -0.075              | -0.010                  |
| History of Kidney Stones*                                                                     | 2,770           | 4.1%               | 2,760       | 4.1%               | 0.001               | 0.000                   |
| Sickle Cell Disease                                                                           | 13              | 0.0%               | 14          | 0.0%               | -0.001              | -0.001                  |
| Smoking*                                                                                      | 11,750          | 17.5%              | 11,784      | 17.6%              | -0.107              | -0.003                  |
| Alcohol Use*                                                                                  | 1,016           | 1.5%               | 1,019       | 1.5%               | -0.009              | -0.001                  |
| Any History of RCC (Ever)                                                                     | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                  | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                              | 89              | 0.1%               | 97          | 0.1%               | -0.013              | -0.003                  |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                    | 59,804          | 89.0%              | 59,587      | 89.0%              | 0.043               | 0.001                   |
| Sulfonylureas*                                                                                | 36,153          | 53.8%              | 36,209      | 54.1%              | -0.254              | -0.005                  |
| Thiazolidinediones*                                                                           | 8,344           | 12.4%              | 8,363       | 12.5%              | -0.067              | -0.002                  |
| Alpha Glucosidase Inhibitor                                                                   | 525             | 0.8%               | 440         | 0.7%               | 0.124               | 0.015                   |
| Meglitinides                                                                                  | 1,290           | 1.9%               | 1,084       | 1.6%               | 0.302               | 0.023                   |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                              | 1.6             | 0.6                | 1.6         | 0.6                | 0.001               | 0.002                   |

**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

|                                                                                               | Medical Product |                           |               |                           | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|---------------------------|---------------|---------------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                           | Sitagliptin   |                           | Absolute Difference | Standardized Difference |
|                                                                                               | Number          | Percent                   | Number        | Percent                   |                     |                         |
| N of Oral Antidiabetic Drug Classes                                                           |                 |                           |               |                           |                     |                         |
| 1                                                                                             | 33,206          | 49.4%                     | 33,055        | 49.4%                     | 0.070               | 0.001                   |
| 2                                                                                             | 29,167          | 43.4%                     | 29,257        | 43.7%                     | -0.271              | -0.005                  |
| 3                                                                                             | 4,672           | 7.0%                      | 4,530         | 6.8%                      | 0.190               | 0.008                   |
| 4+                                                                                            | 139             | 0.2%                      | 131           | 0.2%                      | 0.012               | 0.003                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0               | 0.0%                      | 0             | 0.0%                      | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0               | 0.0%                      | 0             | 0.0%                      | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | 0               | 0.0%                      | 0             | 0.0%                      | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0               | 0.0%                      | 0             | 0.0%                      | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 14,654          | 21.8%                     | 13,790        | 20.6%                     | 1.222               | 0.030                   |
| Short- and Rapid-Acting Insulin                                                               | 6,022           | 9.0%                      | 4,379         | 6.5%                      | 2.425               | 0.091                   |
| Combination Insulins                                                                          | 2,103           | 3.1%                      | 1,721         | 2.6%                      | 0.560               | 0.034                   |
| Any Insulin*                                                                                  | 16,779          | 25.0%                     | 16,499        | 24.6%                     | 0.339               | 0.008                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 32,519          | 48.4%                     | 32,470        | 48.5%                     | -0.080              | -0.002                  |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 23,024          | 34.3%                     | 22,926        | 34.2%                     | 0.039               | 0.001                   |
| Beta Blockers*                                                                                | 29,887          | 44.5%                     | 29,852        | 44.6%                     | -0.088              | -0.002                  |
| Calcium Channel Blockers*                                                                     | 22,362          | 33.3%                     | 22,313        | 33.3%                     | -0.031              | -0.001                  |
| Statins*                                                                                      | 52,419          | 78.0%                     | 52,278        | 78.1%                     | -0.036              | -0.001                  |
| Loop Diuretics                                                                                | 11,065          | 16.5%                     | 10,799        | 16.1%                     | 0.345               | 0.009                   |
| Other Diuretics                                                                               | 26,424          | 39.3%                     | 26,477        | 39.5%                     | -0.203              | -0.004                  |
| Any Diuretic*                                                                                 | 33,302          | 49.6%                     | 33,230        | 49.6%                     | -0.049              | -0.001                  |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 28,729          | 42.8%                     | 28,667        | 42.8%                     | -0.042              | -0.001                  |
|                                                                                               | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b>   | <b>Standard Deviation</b> |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | 3.3             | 1.4                       | 3.3           | 1.4                       | -0.003              | -0.002                  |
|                                                                                               | <b>Number</b>   | <b>Percent</b>            | <b>Number</b> | <b>Percent</b>            |                     |                         |
| Influenza Vaccine*                                                                            | 39,064          | 58.1%                     | 38,928        | 58.1%                     | 0.020               | 0.000                   |
| Pneumococcal Vaccine (Ever)*                                                                  | 36,033          | 53.6%                     | 35,969        | 53.7%                     | -0.073              | -0.001                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                           |               |                           |                     |                         |
|                                                                                               | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b>   | <b>Standard Deviation</b> |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | 19.1            | 15.4                      | 19.0          | 15.2                      | 0.157               | 0.010                   |

**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

|                                                                    | Medical Product |                           |             |                           | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                    | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Number of AV Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0-4                                                                | 4,924           | 7.3%                      | 4,936       | 7.4%                      | -0.041              | -0.002                  |
| 5-10                                                               | 17,121          | 25.5%                     | 17,072      | 25.5%                     | -0.007              | -0.000                  |
| 11-15                                                              | 13,056          | 19.4%                     | 12,971      | 19.4%                     | 0.065               | 0.002                   |
| 16+                                                                | 32,083          | 47.8%                     | 31,994      | 47.8%                     | -0.017              | -0.000                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.4             | 1.0                       | 0.4         | 1.1                       | -0.013              | -0.012                  |
| Number of ED Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0                                                                  | 51,303          | 76.4%                     | 51,039      | 76.2%                     | 0.154               | 0.004                   |
| 1                                                                  | 10,414          | 15.5%                     | 10,431      | 15.6%                     | -0.074              | -0.002                  |
| 2+                                                                 | 5,467           | 8.1%                      | 5,503       | 8.2%                      | -0.080              | -0.003                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2             | 0.5                       | 0.2         | 0.5                       | -0.005              | -0.010                  |
| Number of IP Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0                                                                  | 58,826          | 87.6%                     | 58,579      | 87.5%                     | 0.092               | 0.003                   |
| 1                                                                  | 6,516           | 9.7%                      | 6,536       | 9.8%                      | -0.061              | -0.002                  |
| 2+                                                                 | 1,842           | 2.7%                      | 1,857       | 2.8%                      | -0.031              | -0.002                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                           |             |                           |                     |                         |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.7             | 1.7                       | 1.7         | 1.7                       | -0.011              | -0.006                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   |                 |                           |             |                           |                     |                         |
| 0                                                                  | 21,063          | 31.4%                     | 20,965      | 31.3%                     | 0.047               | 0.001                   |
| 1                                                                  | 14,807          | 22.0%                     | 14,708      | 22.0%                     | 0.079               | 0.002                   |
| 2                                                                  | 13,043          | 19.4%                     | 13,006      | 19.4%                     | -0.007              | -0.000                  |
| 3+                                                                 | 18,271          | 27.2%                     | 18,293      | 27.3%                     | -0.119              | -0.003                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                       | 0.2         | 0.0                       | -0.002              | -0.033                  |

**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 3,212           | 4.8%               | 3,234       | 4.8%               | -0.047              | -0.002                  |
| <0.25                                                | 63,972          | 95.2%              | 63,739      | 95.2%              | 0.047               | 0.002                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.5             | 2.3                | 1.6         | 2.4                | -0.051              | -0.022                  |
| Combined Comorbidity Score Categories *              |                 |                    |             |                    |                     |                         |
| <1                                                   | 27,051          | 40.3%              | 26,833      | 40.1%              | 0.199               | 0.004                   |
| 1                                                    | 13,956          | 20.8%              | 13,886      | 20.7%              | 0.038               | 0.001                   |
| 2                                                    | 9,191           | 13.7%              | 9,183       | 13.7%              | -0.031              | -0.001                  |
| 3+                                                   | 16,986          | 25.3%              | 17,071      | 25.5%              | -0.207              | -0.005                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 11,232          | 16.7%              | 11,268      | 16.8%              | -0.106              | -0.003                  |
| Nephropathy **                                       | 9,419           | 14.0%              | 10,126      | 15.1%              | -1.100              | -0.031                  |
| Neuropathy **                                        | 20,065          | 29.9%              | 20,136      | 30.1%              | -0.200              | -0.004                  |
| Any IPP or ED Hypoglycemia                           | 77              | 0.1%               | 119         | 0.2%               | -0.064              | -0.017                  |
| Any IPP, ED or Lab Hyperglycemia                     | 21,048          | 31.3%              | 21,128      | 31.5%              | -0.218              | -0.005                  |
| Frailty Indicators **                                | 14,122          | 21.0%              | 14,701      | 22.0%              | -0.931              | -0.023                  |
| Pneumococcal Vaccine **                              | 37,819          | 56.3%              | 37,901      | 56.6%              | -0.300              | -0.006                  |
| GLP-1RA or GIP/GLP-1RA **                            | 1,169           | 1.7%               | 696         | 1.0%               | 0.700               | 0.060                   |
| Insulin Initiation **                                | 1,588           | 2.4%               | 1,641       | 2.5%               | -0.087              | -0.006                  |
| Insulin or GLP-1RA                                   | 2,678           | 4.0%               | 2,296       | 3.4%               | 0.558               | 0.030                   |
| Influenza Vaccine **                                 | 39,318          | 58.5%              | 39,125      | 58.4%              | 0.104               | 0.002                   |
| Preventive Healthcare **                             | 64,219          | 95.6%              | 64,072      | 95.7%              | -0.082              | -0.004                  |
| Any HbA1c Test **                                    | 33,657          | 50.1%              | 32,397      | 48.4%              | 1.724               | 0.035                   |
| ACEis                                                | 26,920          | 40.1%              | 27,151      | 40.5%              | -0.472              | -0.010                  |
| ARBs                                                 | 20,457          | 30.4%              | 20,492      | 30.6%              | -0.148              | -0.003                  |
| Beta Blockers                                        | 26,151          | 38.9%              | 26,625      | 39.8%              | -0.831              | -0.017                  |
| Calcium Channel Blockers                             | 18,946          | 28.2%              | 19,397      | 29.0%              | -0.762              | -0.017                  |
| Statins                                              | 45,376          | 67.5%              | 45,644      | 68.2%              | -0.614              | -0.013                  |
| Any Diuretics                                        | 26,812          | 39.9%              | 27,959      | 41.7%              | -1.838              | -0.037                  |
| Any NSAID                                            | 15,396          | 22.9%              | 15,669      | 23.4%              | -0.480              | -0.011                  |



**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.7             | 1.4                | 2.7         | 1.4                | -0.051              | -0.037                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 4,005           | 6.0%               | 5,130       | 7.7%               | -1.699              | -0.067                  |
| Any ED Visits**                                                           | 5,568           | 8.3%               | 6,317       | 9.4%               | -1.144              | -0.040                  |
| Any IP Visits**                                                           | 3,408           | 5.1%               | 4,340       | 6.5%               | -1.407              | -0.060                  |
| No AV Visits                                                              | 4,477           | 6.7%               | 4,206       | 6.3%               | 0.384               | 0.016                   |
| 1-3 AV Visits**                                                           | 27,109          | 40.4%              | 26,306      | 39.3%              | 1.072               | 0.022                   |
| >3 AV Visits**                                                            | 35,598          | 53.0%              | 36,461      | 54.4%              | -1.455              | -0.029                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 12,426          | 18.5%              | 12,512      | 18.7%              | -0.187              | -0.005                  |
| Nephropathy**                                                             | 11,379          | 16.9%              | 12,238      | 18.3%              | -1.335              | -0.035                  |
| Neuropathy**                                                              | 22,099          | 32.9%              | 22,208      | 33.2%              | -0.267              | -0.006                  |
| Any IPP or ED Hypoglycemia                                                | 77              | 0.1%               | 107         | 0.2%               | -0.045              | -0.012                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 18,536          | 27.6%              | 18,209      | 27.2%              | 0.402               | 0.009                   |
| Frailty Indicators**                                                      | 14,875          | 22.1%              | 15,663      | 23.4%              | -1.247              | -0.030                  |
| Pneumococcal Vaccine**                                                    | 39,445          | 58.7%              | 39,516      | 59.0%              | -0.291              | -0.006                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,096           | 1.6%               | 823         | 1.2%               | 0.402               | 0.034                   |
| Insulin Initiation**                                                      | 12,974          | 19.3%              | 11,577      | 17.3%              | 2.025               | 0.052                   |
| Insulin or GLP-1RA Initiation                                             | 13,788          | 20.5%              | 12,174      | 18.2%              | 2.345               | 0.059                   |
| Influenza Vaccine**                                                       | 39,163          | 58.3%              | 38,918      | 58.1%              | 0.182               | 0.004                   |
| Preventive Healthcare**                                                   | 63,939          | 95.2%              | 63,738      | 95.2%              | 0.000               | 0.000                   |
| Any HbA1c Test**                                                          | 38,734          | 57.7%              | 37,877      | 56.6%              | 1.098               | 0.022                   |
| ACEi                                                                      | 25,813          | 38.4%              | 25,843      | 38.6%              | -0.167              | -0.003                  |
| ARB                                                                       | 19,873          | 29.6%              | 19,796      | 29.6%              | 0.021               | 0.000                   |
| Beta Blockers                                                             | 25,502          | 38.0%              | 25,774      | 38.5%              | -0.526              | -0.011                  |
| Calcium Channel Blockers                                                  | 18,299          | 27.2%              | 18,663      | 27.9%              | -0.629              | -0.014                  |
| Statins                                                                   | 43,904          | 65.3%              | 43,845      | 65.5%              | -0.118              | -0.002                  |
| Any Diuretics                                                             | 25,498          | 38.0%              | 26,704      | 39.9%              | -1.921              | -0.039                  |
| Any NSAID                                                                 | 14,807          | 22.0%              | 14,609      | 21.8%              | 0.227               | 0.005                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.6             | 1.4                | 2.6         | 1.4                | -0.031              | -0.022                  |

**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 12,085          | 18.0%                     | 12,001      | 17.9%                     | 0.069               | 0.002                   |
| Any ED Visits**                                                           | 5,407           | 8.0%                      | 5,834       | 8.7%                      | -0.663              | -0.024                  |
| Any IP Visits**                                                           | 3,354           | 5.0%                      | 3,763       | 5.6%                      | -0.627              | -0.028                  |
| No AV Visits                                                              | 6,925           | 10.3%                     | 7,420       | 11.1%                     | -0.772              | -0.025                  |
| 1-3 AV Visits**                                                           | 27,312          | 40.7%                     | 26,480      | 39.5%                     | 1.115               | 0.023                   |
| >3 AV Visits**                                                            | 32,947          | 49.0%                     | 33,073      | 49.4%                     | -0.343              | -0.007                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 13,488          | 20.1%                     | 13,638      | 20.4%                     | -0.287              | -0.007                  |
| Nephropathy**                                                             | 13,121          | 19.5%                     | 14,079      | 21.0%                     | -1.492              | -0.037                  |
| Neuropathy**                                                              | 23,995          | 35.7%                     | 24,079      | 36.0%                     | -0.238              | -0.005                  |
| Any IPP or ED Hypoglycemia                                                | 81              | 0.1%                      | 103         | 0.2%                      | -0.034              | -0.009                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 17,177          | 25.6%                     | 16,875      | 25.2%                     | 0.370               | 0.009                   |
| Frailty Indicators**                                                      | 15,605          | 23.2%                     | 16,496      | 24.6%                     | -1.404              | -0.033                  |
| Pneumococcal Vaccine**                                                    | 41,110          | 61.2%                     | 40,995      | 61.2%                     | -0.021              | -0.000                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,634           | 2.4%                      | 1,117       | 1.7%                      | 0.764               | 0.054                   |
| Insulin Initiation**                                                      | 3,084           | 4.6%                      | 3,166       | 4.7%                      | -0.137              | -0.007                  |
| Insulin or GLP-1RA Initiation                                             | 4,600           | 6.8%                      | 4,196       | 6.3%                      | 0.581               | 0.023                   |
| Influenza Vaccine**                                                       | 39,275          | 58.5%                     | 38,706      | 57.8%                     | 0.665               | 0.014                   |
| Preventive Healthcare**                                                   | 63,467          | 94.5%                     | 63,190      | 94.4%                     | 0.116               | 0.005                   |
| Any HbA1c Test**                                                          | 36,598          | 54.5%                     | 35,504      | 53.0%                     | 1.461               | 0.029                   |
| ACEi                                                                      | 24,836          | 37.0%                     | 24,657      | 36.8%                     | 0.151               | 0.003                   |
| ARB                                                                       | 19,356          | 28.8%                     | 19,194      | 28.7%                     | 0.152               | 0.003                   |
| Beta Blockers                                                             | 24,877          | 37.0%                     | 25,100      | 37.5%                     | -0.449              | -0.009                  |
| Calcium Channel Blockers                                                  | 17,737          | 26.4%                     | 18,147      | 27.1%                     | -0.695              | -0.016                  |
| Statins                                                                   | 42,892          | 63.8%                     | 42,362      | 63.3%                     | 0.590               | 0.012                   |
| Any Diuretics                                                             | 24,550          | 36.5%                     | 25,731      | 38.4%                     | -1.878              | -0.039                  |
| Any NSAID                                                                 | 14,367          | 21.4%                     | 14,027      | 20.9%                     | 0.440               | 0.011                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.5             | 1.5                       | 2.5         | 1.5                       | -0.017              | -0.011                  |

**Table 1j. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Age: ≥65 Years**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 12,053          | 17.9%   | 11,934      | 17.8%   | 0.121               | 0.003                   |
| Any ED Visits**                                                           | 5,284           | 7.9%    | 5,643       | 8.4%    | -0.561              | -0.021                  |
| Any IP Visits**                                                           | 3,265           | 4.9%    | 3,658       | 5.5%    | -0.602              | -0.027                  |
| No AV Visits                                                              | 8,862           | 13.2%   | 9,443       | 14.1%   | -0.909              | -0.027                  |
| 1-3 AV Visits**                                                           | 26,239          | 39.1%   | 25,594      | 38.2%   | 0.840               | 0.017                   |
| >3 AV Visits**                                                            | 32,083          | 47.8%   | 31,936      | 47.7%   | 0.069               | 0.001                   |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 12,483          | 18.6%   | 8,708       | 13.0%   | 5.577               | 0.153                   |
| Post-Index Insulin Initiation                                             | 9,362           | 13.9%   | 9,777       | 14.6%   | -0.664              | -0.019                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\* Covariate included in the treatment and censoring propensity score logistic regression models.

\*\* Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup> Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup> Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup> Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup> Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup> Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Unique patients                           | 102,642         | 100.0%             | 642,586     | 100.0%             |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 61.6            | 9.9                | 66.4        | 10.7               | -4.820              | -0.467                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 10,579          | 10.3%              | 44,119      | 6.9%               | 3.441               | 0.123                   |
| 45-54 years                               | 19,874          | 19.4%              | 83,621      | 13.0%              | 6.349               | 0.173                   |
| 55-64 years                               | 26,646          | 26.0%              | 131,357     | 20.4%              | 5.518               | 0.131                   |
| 65-74 years                               | 32,388          | 31.6%              | 212,110     | 33.0%              | -1.454              | -0.031                  |
| ≥ 75 years                                | 13,155          | 12.8%              | 171,379     | 26.7%              | -13.854             | -0.353                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 46,906          | 45.7%              | 329,667     | 51.3%              | -5.605              | -0.112                  |
| Male                                      | 55,736          | 54.3%              | 312,919     | 48.7%              | 5.605               | 0.112                   |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 550             | 0.5%               | 3,703       | 0.6%               | -0.040              | -0.005                  |
| Asian                                     | 3,753           | 3.7%               | 38,676      | 6.0%               | -2.362              | -0.110                  |
| Black or African American                 | 9,161           | 8.9%               | 75,965      | 11.8%              | -2.897              | -0.095                  |
| Multi-racial                              | 507             | 0.5%               | 2,321       | 0.4%               | 0.133               | 0.020                   |
| Native Hawaiian or Other Pacific Islander | 405             | 0.4%               | 2,462       | 0.4%               | 0.011               | 0.002                   |
| Unknown                                   | 32,789          | 31.9%              | 148,691     | 23.1%              | 8.806               | 0.198                   |
| White                                     | 55,477          | 54.0%              | 370,768     | 57.7%              | -3.650              | -0.074                  |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 6,880           | 6.7%               | 50,145      | 7.8%               | -1.101              | -0.042                  |
| No                                        | 66,284          | 64.6%              | 471,146     | 73.3%              | -8.742              | -0.190                  |
| Unknown                                   | 29,478          | 28.7%              | 121,295     | 18.9%              | 9.843               | 0.233                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 2,865           | 2.8%               | 56,420      | 8.8%               | -5.989              | -0.259                  |
| 2014                                      | 13,522          | 13.2%              | 74,343      | 11.6%              | 1.605               | 0.049                   |
| 2015                                      | 24,406          | 23.8%              | 71,982      | 11.2%              | 12.576              | 0.336                   |
| 2016                                      | 19,968          | 19.5%              | 69,555      | 10.8%              | 8.630               | 0.243                   |
| 2017                                      | 16,590          | 16.2%              | 81,446      | 12.7%              | 3.488               | 0.099                   |
| 2018                                      | 8,835           | 8.6%               | 71,465      | 11.1%              | -2.514              | -0.084                  |
| 2019+                                     | 16,456          | 16.0%              | 217,375     | 33.8%              | -17.796             | -0.420                  |

**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

|                                                                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                    |             |                    |                     |                         |
| Retinopathy*                                                                                         | 11,092          | 10.8%              | 80,912      | 12.6%              | -1.785              | -0.056                  |
| Nephropathy*                                                                                         | 7,121           | 6.9%               | 66,011      | 10.3%              | -3.335              | -0.119                  |
| Neuropathy*                                                                                          | 21,423          | 20.9%              | 143,376     | 22.3%              | -1.441              | -0.035                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 261             | 0.3%               | 3,378       | 0.5%               | -0.271              | -0.044                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 51,821          | 50.5%              | 301,433     | 46.9%              | 3.578               | 0.072                   |
| Hypertension*                                                                                        | 80,550          | 78.5%              | 520,013     | 80.9%              | -2.448              | -0.061                  |
| Dyslipidemia*                                                                                        | 78,096          | 76.1%              | 492,959     | 76.7%              | -0.629              | -0.015                  |
| Coronary Artery Disease*                                                                             | 18,978          | 18.5%              | 141,412     | 22.0%              | -3.517              | -0.088                  |
| Cerebrovascular Disease*                                                                             | 4,090           | 4.0%               | 41,699      | 6.5%               | -2.505              | -0.113                  |
| Peripheral Vascular Disease*                                                                         | 9,523           | 9.3%               | 89,156      | 13.9%              | -4.597              | -0.144                  |
| Congestive Heart Failure*                                                                            | 5,881           | 5.7%               | 55,804      | 8.7%               | -2.955              | -0.114                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 11,791          | 11.5%              | 85,877      | 13.4%              | -1.877              | -0.057                  |
| Depression*                                                                                          | 15,266          | 14.9%              | 104,546     | 16.3%              | -1.397              | -0.039                  |
| Obesity*                                                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Cancer (Excluding NMSC)*                                                                             | 14,420          | 14.0%              | 112,610     | 17.5%              | -3.476              | -0.095                  |
| Hepatitis C Infection                                                                                | 996             | 1.0%               | 6,427       | 1.0%               | -0.030              | -0.003                  |
| History of Kidney Stones*                                                                            | 3,134           | 3.1%               | 22,658      | 3.5%               | -0.473              | -0.027                  |
| Sickle Cell Disease                                                                                  | 17              | 0.0%               | 184         | 0.0%               | -0.012              | -0.008                  |
| Smoking*                                                                                             | 15,781          | 15.4%              | 109,166     | 17.0%              | -1.614              | -0.044                  |
| Alcohol Use*                                                                                         | 1,973           | 1.9%               | 13,662      | 2.1%               | -0.204              | -0.014                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 77              | 0.1%               | 798         | 0.1%               | -0.049              | -0.016                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                           | 93,395          | 91.0%              | 572,709     | 89.1%              | 1.865               | 0.062                   |
| Sulfonylureas*                                                                                       | 50,996          | 49.7%              | 311,668     | 48.5%              | 1.181               | 0.024                   |
| Thiazolidinediones*                                                                                  | 10,924          | 10.6%              | 47,319      | 7.4%               | 3.279               | 0.115                   |
| Alpha Glucosidase Inhibitor                                                                          | 642             | 0.6%               | 3,408       | 0.5%               | 0.095               | 0.013                   |
| Meglitinides                                                                                         | 1,461           | 1.4%               | 8,916       | 1.4%               | 0.036               | 0.003                   |
|                                                                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.5             | 0.6                | 1.5         | 0.6                | 0.065               | 0.109                   |

**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 54,063          | 52.7%              | 367,115     | 57.1%              | -4.459              | -0.090                  |
| 2                                                                                             | 42,556          | 41.5%              | 250,176     | 38.9%              | 2.528               | 0.052                   |
| 3                                                                                             | 5,855           | 5.7%               | 24,641      | 3.8%               | 1.870               | 0.088                   |
| 4+                                                                                            | 168             | 0.2%               | 654         | 0.1%               | 0.062               | 0.017                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 23,094          | 22.5%              | 81,134      | 12.6%              | 9.873               | 0.262                   |
| Short- and Rapid-Acting Insulin                                                               | 9,973           | 9.7%               | 32,013      | 5.0%               | 4.734               | 0.182                   |
| Combination Insulins                                                                          | 2,948           | 2.9%               | 8,748       | 1.4%               | 1.511               | 0.105                   |
| Any Insulin*                                                                                  | 26,249          | 25.6%              | 99,773      | 15.5%              | 10.047              | 0.251                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 50,454          | 49.2%              | 300,788     | 46.8%              | 2.346               | 0.047                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 26,798          | 26.1%              | 174,470     | 27.2%              | -1.043              | -0.024                  |
| Beta Blockers*                                                                                | 33,642          | 32.8%              | 229,774     | 35.8%              | -2.982              | -0.063                  |
| Calcium Channel Blockers*                                                                     | 25,520          | 24.9%              | 185,966     | 28.9%              | -4.077              | -0.092                  |
| Statins*                                                                                      | 72,726          | 70.9%              | 463,054     | 72.1%              | -1.207              | -0.027                  |
| Loop Diuretics                                                                                | 10,083          | 9.8%               | 73,862      | 11.5%              | -1.671              | -0.054                  |
| Other Diuretics                                                                               | 32,842          | 32.0%              | 202,182     | 31.5%              | 0.533               | 0.011                   |
| Any Diuretic*                                                                                 | 39,315          | 38.3%              | 250,371     | 39.0%              | -0.660              | -0.014                  |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 48,014          | 46.8%              | 287,373     | 44.7%              | 2.057               | 0.041                   |
|                                                                                               |                 |                    |             |                    |                     |                         |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | 2.9             | 1.4                | 2.9         | 1.4                | -0.056              | -0.039                  |
|                                                                                               |                 |                    |             |                    |                     |                         |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Influenza Vaccine*                                                                            | 45,451          | 44.3%              | 305,582     | 47.6%              | -3.274              | -0.066                  |
| Pneumococcal Vaccine (Ever)*                                                                  | 34,404          | 33.5%              | 251,029     | 39.1%              | -5.547              | -0.116                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                    |             |                    |                     |                         |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | 15.6            | 15.4               | 16.9        | 17.0               | -1.333              | -0.082                  |

**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 14,908          | 14.5%              | 87,924      | 13.7%              | 0.841               | 0.024                   |
| 5-10                                                               | 32,999          | 32.1%              | 188,208     | 29.3%              | 2.860               | 0.062                   |
| 11-15                                                              | 18,561          | 18.1%              | 114,894     | 17.9%              | 0.203               | 0.005                   |
| 16+                                                                | 36,174          | 35.2%              | 251,560     | 39.1%              | -3.905              | -0.081                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.5             | 1.3                | 0.6         | 1.5                | -0.070              | -0.050                  |
| Number of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 75,805          | 73.9%              | 455,770     | 70.9%              | 2.926               | 0.065                   |
| 1                                                                  | 16,354          | 15.9%              | 111,299     | 17.3%              | -1.387              | -0.037                  |
| 2+                                                                 | 10,483          | 10.2%              | 75,517      | 11.8%              | -1.539              | -0.049                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.1             | 0.4                | 0.2         | 0.6                | -0.090              | -0.167                  |
| Number of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 94,141          | 91.7%              | 555,005     | 86.4%              | 5.347               | 0.172                   |
| 1                                                                  | 6,797           | 6.6%               | 63,959      | 10.0%              | -3.331              | -0.121                  |
| 2+                                                                 | 1,704           | 1.7%               | 23,622      | 3.7%               | -2.016              | -0.125                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.2             | 1.5                | 1.5         | 1.7                | -0.303              | -0.193                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 48,750          | 47.5%              | 267,526     | 41.6%              | 5.862               | 0.118                   |
| 1                                                                  | 22,264          | 21.7%              | 129,034     | 20.1%              | 1.611               | 0.040                   |
| 2                                                                  | 14,955          | 14.6%              | 101,836     | 15.8%              | -1.278              | -0.036                  |
| 3+                                                                 | 16,673          | 16.2%              | 144,190     | 22.4%              | -6.195              | -0.157                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.1                | -0.010              | -0.225                  |

**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 2,980           | 2.9%               | 42,712      | 6.6%               | -3.744              | -0.176                  |
| <0.25                                                | 99,662          | 97.1%              | 599,874     | 93.4%              | 3.744               | 0.176                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.0             | 1.8                | 1.6         | 2.4                | -0.562              | -0.264                  |
| Combined Comorbidity Score Categories *              | Number          | Percent            | Number      | Percent            |                     |                         |
| <1                                                   | 49,950          | 48.7%              | 261,245     | 40.7%              | 8.009               | 0.162                   |
| 1                                                    | 23,668          | 23.1%              | 138,484     | 21.6%              | 1.508               | 0.036                   |
| 2                                                    | 12,739          | 12.4%              | 84,877      | 13.2%              | -0.798              | -0.024                  |
| 3+                                                   | 16,285          | 15.9%              | 157,980     | 24.6%              | -8.719              | -0.218                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 13,133          | 12.8%              | 95,143      | 14.8%              | -2.011              | -0.058                  |
| Nephropathy **                                       | 9,739           | 9.5%               | 89,138      | 13.9%              | -4.383              | -0.137                  |
| Neuropathy **                                        | 24,981          | 24.3%              | 165,940     | 25.8%              | -1.486              | -0.034                  |
| Any IPP or ED Hypoglycemia                           | 104             | 0.1%               | 1,039       | 0.2%               | -0.060              | -0.017                  |
| Any IPP, ED or Lab Hyperglycemia                     | 31,684          | 30.9%              | 191,023     | 29.7%              | 1.141               | 0.025                   |
| Frailty Indicators **                                | 13,875          | 13.5%              | 115,966     | 18.0%              | -4.529              | -0.124                  |
| Pneumococcal Vaccine **                              | 36,668          | 35.7%              | 264,970     | 41.2%              | -5.511              | -0.113                  |
| GLP-1RA or GIP/GLP-1RA **                            | 2,150           | 2.1%               | 7,527       | 1.2%               | 0.923               | 0.073                   |
| Insulin Initiation **                                | 2,262           | 2.2%               | 21,658      | 3.4%               | -1.167              | -0.071                  |
| Insulin or GLP-1RA                                   | 4,289           | 4.2%               | 28,560      | 4.4%               | -0.266              | -0.013                  |
| Influenza Vaccine **                                 | 46,331          | 45.1%              | 311,153     | 48.4%              | -3.284              | -0.066                  |
| Preventive Healthcare **                             | 95,347          | 92.9%              | 594,737     | 92.6%              | 0.339               | 0.013                   |
| Any HbA1c Test **                                    | 47,503          | 46.3%              | 286,962     | 44.7%              | 1.623               | 0.033                   |
| ACEis                                                | 41,559          | 40.5%              | 252,142     | 39.2%              | 1.251               | 0.026                   |
| ARBs                                                 | 23,903          | 23.3%              | 155,964     | 24.3%              | -0.984              | -0.023                  |
| Beta Blockers                                        | 29,240          | 28.5%              | 203,377     | 31.6%              | -3.162              | -0.069                  |
| Calcium Channel Blockers                             | 21,759          | 21.2%              | 161,323     | 25.1%              | -3.906              | -0.093                  |
| Statins                                              | 63,240          | 61.6%              | 408,270     | 63.5%              | -1.923              | -0.040                  |
| Any Diuretics                                        | 31,718          | 30.9%              | 209,682     | 32.6%              | -1.729              | -0.037                  |
| Any NSAID                                            | 27,916          | 27.2%              | 167,307     | 26.0%              | 1.161               | 0.026                   |



**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.4                | 2.4         | 1.4                | -0.093              | -0.066                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 7,667           | 7.5%               | 58,628      | 9.1%               | -1.654              | -0.060                  |
| Any ED Visits**                                                           | 9,746           | 9.5%               | 70,441      | 11.0%              | -1.467              | -0.048                  |
| Any IP Visits**                                                           | 4,001           | 3.9%               | 42,166      | 6.6%               | -2.664              | -0.120                  |
| No AV Visits                                                              | 10,392          | 10.1%              | 56,944      | 8.9%               | 1.263               | 0.043                   |
| 1-3 AV Visits**                                                           | 47,296          | 46.1%              | 273,765     | 42.6%              | 3.475               | 0.070                   |
| >3 AV Visits**                                                            | 44,954          | 43.8%              | 311,877     | 48.5%              | -4.738              | -0.095                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 14,599          | 14.2%              | 105,416     | 16.4%              | -2.182              | -0.061                  |
| Nephropathy**                                                             | 11,757          | 11.5%              | 104,721     | 16.3%              | -4.842              | -0.140                  |
| Neuropathy**                                                              | 27,675          | 27.0%              | 181,966     | 28.3%              | -1.355              | -0.030                  |
| Any IPP or ED Hypoglycemia                                                | 109             | 0.1%               | 863         | 0.1%               | -0.028              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 26,113          | 25.4%              | 153,203     | 23.8%              | 1.599               | 0.037                   |
| Frailty Indicators**                                                      | 14,782          | 14.4%              | 123,868     | 19.3%              | -4.875              | -0.131                  |
| Pneumococcal Vaccine**                                                    | 38,545          | 37.6%              | 276,089     | 43.0%              | -5.412              | -0.111                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,834           | 1.8%               | 8,285       | 1.3%               | 0.497               | 0.040                   |
| Insulin Initiation**                                                      | 19,370          | 18.9%              | 71,679      | 11.2%              | 7.717               | 0.217                   |
| Insulin or GLP-1RA Initiation                                             | 20,664          | 20.1%              | 78,229      | 12.2%              | 7.958               | 0.218                   |
| Influenza Vaccine**                                                       | 46,325          | 45.1%              | 310,244     | 48.3%              | -3.148              | -0.063                  |
| Preventive Healthcare**                                                   | 94,812          | 92.4%              | 590,279     | 91.9%              | 0.512               | 0.019                   |
| Any HbA1c Test**                                                          | 52,653          | 51.3%              | 320,791     | 49.9%              | 1.376               | 0.028                   |
| ACEi                                                                      | 38,777          | 37.8%              | 233,384     | 36.3%              | 1.459               | 0.030                   |
| ARB                                                                       | 22,816          | 22.2%              | 147,507     | 23.0%              | -0.726              | -0.017                  |
| Beta Blockers                                                             | 28,091          | 27.4%              | 193,157     | 30.1%              | -2.691              | -0.060                  |
| Calcium Channel Blockers                                                  | 20,612          | 20.1%              | 152,047     | 23.7%              | -3.580              | -0.087                  |
| Statins                                                                   | 59,653          | 58.1%              | 381,124     | 59.3%              | -1.193              | -0.024                  |
| Any Diuretics                                                             | 29,599          | 28.8%              | 195,660     | 30.4%              | -1.612              | -0.035                  |
| Any NSAID                                                                 | 26,077          | 25.4%              | 151,464     | 23.6%              | 1.835               | 0.043                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.4                | 2.3         | 1.5                | -0.065              | -0.045                  |

**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 17,230          | 16.8%                     | 106,069     | 16.5%                     | 0.280               | 0.008                   |
| Any ED Visits**                                                           | 9,154           | 8.9%                      | 62,270      | 9.7%                      | -0.772              | -0.027                  |
| Any IP Visits**                                                           | 3,829           | 3.7%                      | 33,685      | 5.2%                      | -1.512              | -0.073                  |
| No AV Visits                                                              | 17,435          | 17.0%                     | 108,898     | 16.9%                     | 0.039               | 0.001                   |
| 1-3 AV Visits**                                                           | 45,610          | 44.4%                     | 265,689     | 41.3%                     | 3.089               | 0.062                   |
| >3 AV Visits**                                                            | 39,597          | 38.6%                     | 267,999     | 41.7%                     | -3.129              | -0.064                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 15,951          | 15.5%                     | 114,342     | 17.8%                     | -2.254              | -0.060                  |
| Nephropathy**                                                             | 13,581          | 13.2%                     | 118,131     | 18.4%                     | -5.152              | -0.142                  |
| Neuropathy**                                                              | 30,145          | 29.4%                     | 196,156     | 30.5%                     | -1.157              | -0.025                  |
| Any IPP or ED Hypoglycemia                                                | 110             | 0.1%                      | 795         | 0.1%                      | -0.017              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 23,607          | 23.0%                     | 138,459     | 21.5%                     | 1.452               | 0.035                   |
| Frailty Indicators**                                                      | 15,604          | 15.2%                     | 130,710     | 20.3%                     | -5.139              | -0.135                  |
| Pneumococcal Vaccine**                                                    | 40,430          | 39.4%                     | 286,309     | 44.6%                     | -5.166              | -0.105                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,871           | 2.8%                      | 11,762      | 1.8%                      | 0.967               | 0.064                   |
| Insulin Initiation**                                                      | 4,432           | 4.3%                      | 29,505      | 4.6%                      | -0.274              | -0.013                  |
| Insulin or GLP-1RA Initiation                                             | 7,094           | 6.9%                      | 40,186      | 6.3%                      | 0.658               | 0.027                   |
| Influenza Vaccine**                                                       | 46,289          | 45.1%                     | 308,633     | 48.0%                     | -2.932              | -0.059                  |
| Preventive Healthcare**                                                   | 93,661          | 91.3%                     | 581,945     | 90.6%                     | 0.687               | 0.024                   |
| Any HbA1c Test**                                                          | 48,553          | 47.3%                     | 292,413     | 45.5%                     | 1.798               | 0.036                   |
| ACEi                                                                      | 36,614          | 35.7%                     | 218,710     | 34.0%                     | 1.636               | 0.034                   |
| ARB                                                                       | 21,970          | 21.4%                     | 140,952     | 21.9%                     | -0.531              | -0.013                  |
| Beta Blockers                                                             | 27,129          | 26.4%                     | 185,318     | 28.8%                     | -2.409              | -0.054                  |
| Calcium Channel Blockers                                                  | 19,768          | 19.3%                     | 145,105     | 22.6%                     | -3.322              | -0.082                  |
| Statins                                                                   | 57,141          | 55.7%                     | 360,713     | 56.1%                     | -0.464              | -0.009                  |
| Any Diuretics                                                             | 28,119          | 27.4%                     | 185,394     | 28.9%                     | -1.456              | -0.032                  |
| Any NSAID                                                                 | 24,835          | 24.2%                     | 141,921     | 22.1%                     | 2.110               | 0.050                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.1             | 1.5                       | 2.1         | 1.5                       | -0.044              | -0.030                  |

**Table 1k. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 17,025          | 16.6%   | 104,946     | 16.3%   | 0.255               | 0.007                   |
| Any ED Visits**                                                           | 8,772           | 8.5%    | 58,986      | 9.2%    | -0.633              | -0.022                  |
| Any IP Visits**                                                           | 3,756           | 3.7%    | 31,862      | 5.0%    | -1.299              | -0.064                  |
| No AV Visits                                                              | 22,014          | 21.4%   | 139,682     | 21.7%   | -0.290              | -0.007                  |
| 1-3 AV Visits**                                                           | 42,753          | 41.7%   | 250,329     | 39.0%   | 2.696               | 0.055                   |
| >3 AV Visits**                                                            | 37,875          | 36.9%   | 252,575     | 39.3%   | -2.406              | -0.050                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 19,760          | 19.3%   | 75,161      | 11.7%   | 7.555               | 0.210                   |
| Post-Index Insulin Initiation                                             | 13,162          | 12.8%   | 100,664     | 15.7%   | -2.842              | -0.081                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\* Covariate included in the treatment and censoring propensity score logistic regression models.

\*\* Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup> Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup> Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup> Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup> Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup> Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 11. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Patient Characteristics <sup>1</sup>      | Number          | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 102,629         | N/A                | 101,939     | N/A                |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Age (Years) <sup>*</sup>             | 61.6            | 9.9                | 61.7        | 9.9                | -0.082              | -0.008                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 10,576          | 10.3%              | 10,233      | 10.0%              | 0.267               | 0.009                   |
| 45-54 years                               | 19,870          | 19.4%              | 19,886      | 19.5%              | -0.147              | -0.004                  |
| 55-64 years                               | 26,645          | 26.0%              | 26,402      | 25.9%              | 0.063               | 0.001                   |
| 65-74 years                               | 32,388          | 31.6%              | 31,942      | 31.3%              | 0.224               | 0.006                   |
| ≥ 75 years                                | 13,150          | 12.8%              | 13,476      | 13.2%              | -0.407              | -0.013                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 46,901          | 45.7%              | 46,582      | 45.7%              | 0.004               | 0.000                   |
| Male                                      | 55,728          | 54.3%              | 55,357      | 54.3%              | -0.004              | -0.000                  |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 550             | 0.5%               | 600         | 0.6%               | -0.053              | -0.007                  |
| Asian                                     | 3,752           | 3.7%               | 4,997       | 4.9%               | -1.246              | -0.062                  |
| Black or African American                 | 9,161           | 8.9%               | 11,259      | 11.0%              | -2.118              | -0.072                  |
| Multi-racial                              | 507             | 0.5%               | 468         | 0.5%               | 0.035               | 0.005                   |
| Native Hawaiian or Other Pacific Islander | 405             | 0.4%               | 380         | 0.4%               | 0.022               | 0.004                   |
| Unknown                                   | 32,784          | 31.9%              | 33,517      | 32.9%              | -0.936              | -0.026                  |
| White                                     | 55,470          | 54.0%              | 50,717      | 49.8%              | 4.296               | 0.101                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 6,879           | 6.7%               | 7,733       | 7.6%               | -0.883              | -0.036                  |
| No                                        | 66,277          | 64.6%              | 65,035      | 63.8%              | 0.781               | 0.023                   |
| Unknown                                   | 29,473          | 28.7%              | 29,171      | 28.6%              | 0.102               | 0.004                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 2,864           | 2.8%               | 2,844       | 2.8%               | 0.000               | 0.000                   |
| 2014                                      | 13,521          | 13.2%              | 13,354      | 13.1%              | 0.075               | 0.002                   |
| 2015                                      | 24,401          | 23.8%              | 23,799      | 23.3%              | 0.429               | 0.010                   |
| 2016                                      | 19,965          | 19.5%              | 19,846      | 19.5%              | -0.015              | -0.000                  |
| 2017                                      | 16,590          | 16.2%              | 16,632      | 16.3%              | -0.151              | -0.004                  |
| 2018                                      | 8,835           | 8.6%               | 8,900       | 8.7%               | -0.122              | -0.004                  |
| 2019+                                     | 16,453          | 16.0%              | 16,563      | 16.2%              | -0.217              | -0.006                  |

**Table 1I. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                               | Number          | Percent            | Number      | Percent            |                     |                         |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                 |                    |             |                    |                     |                         |
| Retinopathy*                                                                                  | 11,091          | 10.8%              | 11,048      | 10.8%              | -0.031              | -0.001                  |
| Nephropathy*                                                                                  | 7,118           | 6.9%               | 7,155       | 7.0%               | -0.083              | -0.003                  |
| Neuropathy*                                                                                   | 21,417          | 20.9%              | 21,272      | 20.9%              | 0.001               | 0.000                   |
| Any IPP or ED Hypoglycemia Visit                                                              | 260             | 0.3%               | 376         | 0.4%               | -0.115              | -0.021                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 51,812          | 50.5%              | 51,347      | 50.4%              | 0.114               | 0.002                   |
| Hypertension*                                                                                 | 80,538          | 78.5%              | 79,960      | 78.4%              | 0.035               | 0.001                   |
| Dyslipidemia*                                                                                 | 78,083          | 76.1%              | 77,368      | 75.9%              | 0.186               | 0.005                   |
| Coronary Artery Disease*                                                                      | 18,977          | 18.5%              | 19,021      | 18.7%              | -0.168              | -0.004                  |
| Cerebrovascular Disease*                                                                      | 4,090           | 4.0%               | 4,126       | 4.0%               | -0.063              | -0.003                  |
| Peripheral Vascular Disease*                                                                  | 9,519           | 9.3%               | 9,530       | 9.3%               | -0.074              | -0.003                  |
| Congestive Heart Failure*                                                                     | 5,880           | 5.7%               | 5,938       | 5.8%               | -0.096              | -0.004                  |
| Chronic Obstructive Pulmonary Disease*                                                        | 11,788          | 11.5%              | 11,773      | 11.5%              | -0.063              | -0.002                  |
| Depression*                                                                                   | 15,262          | 14.9%              | 15,163      | 14.9%              | -0.004              | -0.000                  |
| Obesity*                                                                                      | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Cancer (Excluding NMSC)*                                                                      | 14,418          | 14.0%              | 14,379      | 14.1%              | -0.057              | -0.002                  |
| Hepatitis C Infection                                                                         | 996             | 1.0%               | 1,083       | 1.1%               | -0.092              | -0.009                  |
| History of Kidney Stones*                                                                     | 3,133           | 3.1%               | 3,129       | 3.1%               | -0.016              | -0.001                  |
| Sickle Cell Disease                                                                           | 17              | 0.0%               | 23          | 0.0%               | -0.006              | -0.004                  |
| Smoking*                                                                                      | 15,777          | 15.4%              | 15,786      | 15.5%              | -0.113              | -0.003                  |
| Alcohol Use*                                                                                  | 1,973           | 1.9%               | 1,983       | 1.9%               | -0.023              | -0.002                  |
| Any History of RCC (Ever)                                                                     | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                  | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                              | 77              | 0.1%               | 95          | 0.1%               | -0.018              | -0.006                  |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                    | 93,382          | 91.0%              | 92,723      | 91.0%              | 0.030               | 0.001                   |
| Sulfonylureas*                                                                                | 50,989          | 49.7%              | 50,873      | 49.9%              | -0.223              | -0.004                  |
| Thiazolidinediones*                                                                           | 10,916          | 10.6%              | 10,828      | 10.6%              | 0.015               | 0.000                   |
| Alpha Glucosidase Inhibitor                                                                   | 642             | 0.6%               | 551         | 0.5%               | 0.085               | 0.011                   |
| Meglitinides                                                                                  | 1,461           | 1.4%               | 1,207       | 1.2%               | 0.240               | 0.021                   |
|                                                                                               | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                              | 1.5             | 0.6                | 1.5         | 0.6                | 0.001               | 0.002                   |

**Table 11. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                                                                        | Medical Product |                    |             |                    | Covariate Balance   |                         |
|----------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                        | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                        | Number          | Percent            | Number      | Percent            |                     |                         |
| N of Oral Antidiabetic Drug Classes                                                    |                 |                    |             |                    |                     |                         |
| 1                                                                                      | 54,061          | 52.7%              | 53,701      | 52.7%              | -0.004              | -0.000                  |
| 2                                                                                      | 42,549          | 41.5%              | 42,374      | 41.6%              | -0.109              | -0.002                  |
| 3                                                                                      | 5,851           | 5.7%               | 5,724       | 5.6%               | 0.086               | 0.004                   |
| 4+                                                                                     | 168             | 0.2%               | 140         | 0.1%               | 0.026               | 0.007                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                      | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                       | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                      | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                  | 23,085          | 22.5%              | 21,506      | 21.1%              | 1.396               | 0.034                   |
| Short- and Rapid-Acting Insulin                                                        | 9,966           | 9.7%               | 7,510       | 7.4%               | 2.344               | 0.084                   |
| Combination Insulins                                                                   | 2,947           | 2.9%               | 2,447       | 2.4%               | 0.471               | 0.029                   |
| Any Insulin*                                                                           | 26,240          | 25.6%              | 25,605      | 25.1%              | 0.450               | 0.010                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEIs)                                      | 50,446          | 49.2%              | 50,096      | 49.1%              | 0.011               | 0.000                   |
| Angiotensin Receptor Blockers (ARBs)*                                                  | 26,793          | 26.1%              | 26,609      | 26.1%              | 0.003               | 0.000                   |
| Beta Blockers*                                                                         | 33,636          | 32.8%              | 33,485      | 32.8%              | -0.074              | -0.002                  |
| Calcium Channel Blockers*                                                              | 25,515          | 24.9%              | 25,439      | 25.0%              | -0.093              | -0.002                  |
| Statins*                                                                               | 72,713          | 70.9%              | 72,163      | 70.8%              | 0.060               | 0.001                   |
| Loop Diuretics                                                                         | 10,081          | 9.8%               | 9,577       | 9.4%               | 0.428               | 0.015                   |
| Other Diuretics                                                                        | 32,836          | 32.0%              | 32,882      | 32.3%              | -0.262              | -0.006                  |
| Any Diuretic*                                                                          | 39,309          | 38.3%              | 39,026      | 38.3%              | 0.018               | 0.000                   |
| Aspirin, Acetaminophen or Other NSAIDs*                                                | 48,007          | 46.8%              | 47,758      | 46.8%              | -0.072              | -0.001                  |
|                                                                                        | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                            | 2.9             | 1.4                | 2.9         | 1.4                | -0.001              | -0.001                  |
|                                                                                        | Number          | Percent            | Number      | Percent            |                     |                         |
| Influenza Vaccine*                                                                     | 45,445          | 44.3%              | 45,220      | 44.4%              | -0.079              | -0.002                  |
| Pneumococcal Vaccine (Ever)*                                                           | 34,402          | 33.5%              | 34,363      | 33.7%              | -0.189              | -0.004                  |
| Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index) |                 |                    |             |                    |                     |                         |
|                                                                                        | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Ambulatory Encounters                                                   | 15.6            | 15.4               | 15.7        | 16.1               | -0.096              | -0.006                  |

**Table 1I. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                                                    | Medical Product |                           |             |                           | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                    | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Number of AV Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0-4                                                                | 14,908          | 14.5%                     | 14,775      | 14.5%                     | 0.032               | 0.001                   |
| 5-10                                                               | 32,991          | 32.1%                     | 32,651      | 32.0%                     | 0.116               | 0.003                   |
| 11-15                                                              | 18,559          | 18.1%                     | 18,424      | 18.1%                     | 0.010               | 0.000                   |
| 16+                                                                | 36,171          | 35.2%                     | 36,088      | 35.4%                     | -0.158              | -0.003                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.5             | 1.3                       | 0.5         | 1.4                       | -0.012              | -0.009                  |
| Number of ED Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0                                                                  | 75,797          | 73.9%                     | 75,131      | 73.7%                     | 0.154               | 0.004                   |
| 1                                                                  | 16,352          | 15.9%                     | 16,282      | 16.0%                     | -0.039              | -0.001                  |
| 2+                                                                 | 10,480          | 10.2%                     | 10,526      | 10.3%                     | -0.114              | -0.004                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.1             | 0.4                       | 0.1         | 0.5                       | -0.004              | -0.009                  |
| Number of IP Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0                                                                  | 94,132          | 91.7%                     | 93,412      | 91.6%                     | 0.085               | 0.003                   |
| 1                                                                  | 6,795           | 6.6%                      | 6,813       | 6.7%                      | -0.063              | -0.003                  |
| 2+                                                                 | 1,702           | 1.7%                      | 1,714       | 1.7%                      | -0.023              | -0.002                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                           |             |                           |                     |                         |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.2             | 1.5                       | 1.2         | 1.5                       | -0.011              | -0.008                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   |                 |                           |             |                           |                     |                         |
| 0                                                                  | 48,745          | 47.5%                     | 48,288      | 47.4%                     | 0.127               | 0.003                   |
| 1                                                                  | 22,260          | 21.7%                     | 21,998      | 21.6%                     | 0.110               | 0.003                   |
| 2                                                                  | 14,955          | 14.6%                     | 14,966      | 14.7%                     | -0.110              | -0.003                  |
| 3+                                                                 | 16,669          | 16.2%                     | 16,687      | 16.4%                     | -0.127              | -0.004                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                       | 0.2         | 0.0                       | -0.001              | -0.019                  |

**Table 11. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 2,977           | 2.9%               | 3,002       | 2.9%               | -0.044              | -0.003                  |
| <0.25                                                | 99,652          | 97.1%              | 98,937      | 97.1%              | 0.044               | 0.003                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.0             | 1.8                | 1.0         | 1.9                | -0.037              | -0.020                  |
| Combined Comorbidity Score Categories *              |                 |                    |             |                    |                     |                         |
| <1                                                   | 49,943          | 48.7%              | 49,372      | 48.4%              | 0.230               | 0.005                   |
| 1                                                    | 23,667          | 23.1%              | 23,505      | 23.1%              | 0.003               | 0.000                   |
| 2                                                    | 12,739          | 12.4%              | 12,691      | 12.4%              | -0.037              | -0.001                  |
| 3+                                                   | 16,280          | 15.9%              | 16,370      | 16.1%              | -0.196              | -0.005                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 13,132          | 12.8%              | 13,243      | 13.0%              | -0.195              | -0.006                  |
| Nephropathy **                                       | 9,735           | 9.5%               | 10,256      | 10.1%              | -0.575              | -0.019                  |
| Neuropathy **                                        | 24,974          | 24.3%              | 24,943      | 24.5%              | -0.135              | -0.003                  |
| Any IPP or ED Hypoglycemia                           | 104             | 0.1%               | 143         | 0.1%               | -0.039              | -0.011                  |
| Any IPP, ED or Lab Hyperglycemia                     | 31,676          | 30.9%              | 32,037      | 31.4%              | -0.563              | -0.012                  |
| Frailty Indicators **                                | 13,871          | 13.5%              | 14,007      | 13.7%              | -0.225              | -0.007                  |
| Pneumococcal Vaccine **                              | 36,666          | 35.7%              | 36,801      | 36.1%              | -0.374              | -0.008                  |
| GLP-1RA or GIP/GLP-1RA **                            | 2,149           | 2.1%               | 1,236       | 1.2%               | 0.881               | 0.069                   |
| Insulin Initiation **                                | 2,262           | 2.2%               | 2,695       | 2.6%               | -0.440              | -0.029                  |
| Insulin or GLP-1RA                                   | 4,288           | 4.2%               | 3,853       | 3.8%               | 0.398               | 0.020                   |
| Influenza Vaccine **                                 | 46,327          | 45.1%              | 46,150      | 45.3%              | -0.132              | -0.003                  |
| Preventive Healthcare **                             | 95,337          | 92.9%              | 94,692      | 92.9%              | 0.004               | 0.000                   |
| Any HbA1c Test **                                    | 47,497          | 46.3%              | 45,638      | 44.8%              | 1.510               | 0.030                   |
| ACEis                                                | 41,553          | 40.5%              | 42,197      | 41.4%              | -0.906              | -0.018                  |
| ARBs                                                 | 23,898          | 23.3%              | 24,028      | 23.6%              | -0.285              | -0.007                  |
| Beta Blockers                                        | 29,235          | 28.5%              | 29,516      | 29.0%              | -0.468              | -0.011                  |
| Calcium Channel Blockers                             | 21,755          | 21.2%              | 22,247      | 21.8%              | -0.627              | -0.015                  |
| Statins                                              | 63,230          | 61.6%              | 63,821      | 62.6%              | -0.997              | -0.021                  |
| Any Diuretics                                        | 31,715          | 30.9%              | 32,754      | 32.1%              | -1.229              | -0.027                  |
| Any NSAID                                            | 27,910          | 27.2%              | 28,182      | 27.6%              | -0.451              | -0.010                  |



**Table 11. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.4                | 2.4         | 1.4                | -0.050              | -0.035                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 7,666           | 7.5%               | 9,416       | 9.2%               | -1.767              | -0.064                  |
| Any ED Visits**                                                           | 9,743           | 9.5%               | 10,398      | 10.2%              | -0.707              | -0.024                  |
| Any IP Visits**                                                           | 4,000           | 3.9%               | 4,741       | 4.7%               | -0.753              | -0.037                  |
| No AV Visits                                                              | 10,392          | 10.1%              | 9,695       | 9.5%               | 0.616               | 0.021                   |
| 1-3 AV Visits**                                                           | 47,288          | 46.1%              | 45,907      | 45.0%              | 1.042               | 0.021                   |
| >3 AV Visits**                                                            | 44,949          | 43.8%              | 46,337      | 45.5%              | -1.658              | -0.034                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 14,598          | 14.2%              | 14,821      | 14.5%              | -0.315              | -0.009                  |
| Nephropathy**                                                             | 11,753          | 11.5%              | 12,471      | 12.2%              | -0.782              | -0.024                  |
| Neuropathy**                                                              | 27,668          | 27.0%              | 27,616      | 27.1%              | -0.131              | -0.003                  |
| Any IPP or ED Hypoglycemia                                                | 109             | 0.1%               | 135         | 0.1%               | -0.026              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 26,108          | 25.4%              | 25,964      | 25.5%              | -0.031              | -0.001                  |
| Frailty Indicators**                                                      | 14,778          | 14.4%              | 15,102      | 14.8%              | -0.416              | -0.012                  |
| Pneumococcal Vaccine**                                                    | 38,543          | 37.6%              | 38,754      | 38.0%              | -0.461              | -0.010                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,833           | 1.8%               | 1,411       | 1.4%               | 0.401               | 0.032                   |
| Insulin Initiation**                                                      | 19,364          | 18.9%              | 17,383      | 17.1%              | 1.816               | 0.048                   |
| Insulin or GLP-1RA Initiation                                             | 20,657          | 20.1%              | 18,373      | 18.0%              | 2.105               | 0.054                   |
| Influenza Vaccine**                                                       | 46,321          | 45.1%              | 46,019      | 45.1%              | -0.010              | -0.000                  |
| Preventive Healthcare**                                                   | 94,803          | 92.4%              | 94,017      | 92.2%              | 0.146               | 0.006                   |
| Any HbA1c Test**                                                          | 52,647          | 51.3%              | 51,233      | 50.3%              | 1.039               | 0.021                   |
| ACEi                                                                      | 38,773          | 37.8%              | 39,110      | 38.4%              | -0.586              | -0.012                  |
| ARB                                                                       | 22,813          | 22.2%              | 22,871      | 22.4%              | -0.208              | -0.005                  |
| Beta Blockers                                                             | 28,087          | 27.4%              | 28,212      | 27.7%              | -0.308              | -0.007                  |
| Calcium Channel Blockers                                                  | 20,609          | 20.1%              | 21,109      | 20.7%              | -0.627              | -0.016                  |
| Statins                                                                   | 59,644          | 58.1%              | 59,622      | 58.5%              | -0.372              | -0.008                  |
| Any Diuretics                                                             | 29,597          | 28.8%              | 30,757      | 30.2%              | -1.334              | -0.029                  |
| Any NSAID                                                                 | 26,073          | 25.4%              | 25,553      | 25.1%              | 0.338               | 0.008                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2             | 1.4                | 2.2         | 1.5                | -0.031              | -0.021                  |

**Table 1I. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 17,230          | 16.8%                     | 16,947      | 16.6%                     | 0.164               | 0.004                   |
| Any ED Visits**                                                           | 9,153           | 8.9%                      | 9,448       | 9.3%                      | -0.350              | -0.012                  |
| Any IP Visits**                                                           | 3,828           | 3.7%                      | 4,137       | 4.1%                      | -0.328              | -0.017                  |
| No AV Visits                                                              | 17,431          | 17.0%                     | 17,833      | 17.5%                     | -0.509              | -0.014                  |
| 1-3 AV Visits**                                                           | 45,603          | 44.4%                     | 44,295      | 43.5%                     | 0.983               | 0.020                   |
| >3 AV Visits**                                                            | 39,595          | 38.6%                     | 39,811      | 39.1%                     | -0.473              | -0.010                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 15,950          | 15.5%                     | 16,258      | 15.9%                     | -0.407              | -0.011                  |
| Nephropathy**                                                             | 13,577          | 13.2%                     | 14,410      | 14.1%                     | -0.907              | -0.027                  |
| Neuropathy**                                                              | 30,138          | 29.4%                     | 30,007      | 29.4%                     | -0.070              | -0.002                  |
| Any IPP or ED Hypoglycemia                                                | 110             | 0.1%                      | 127         | 0.1%                      | -0.018              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 23,604          | 23.0%                     | 23,685      | 23.2%                     | -0.235              | -0.006                  |
| Frailty Indicators**                                                      | 15,600          | 15.2%                     | 16,055      | 15.7%                     | -0.549              | -0.015                  |
| Pneumococcal Vaccine**                                                    | 40,428          | 39.4%                     | 40,531      | 39.8%                     | -0.368              | -0.008                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,870           | 2.8%                      | 1,981       | 1.9%                      | 0.853               | 0.056                   |
| Insulin Initiation**                                                      | 4,431           | 4.3%                      | 4,954       | 4.9%                      | -0.543              | -0.026                  |
| Insulin or GLP-1RA Initiation                                             | 7,092           | 6.9%                      | 6,760       | 6.6%                      | 0.279               | 0.011                   |
| Influenza Vaccine**                                                       | 46,285          | 45.1%                     | 45,801      | 44.9%                     | 0.169               | 0.003                   |
| Preventive Healthcare**                                                   | 93,652          | 91.3%                     | 92,810      | 91.0%                     | 0.208               | 0.007                   |
| Any HbA1c Test**                                                          | 48,548          | 47.3%                     | 47,067      | 46.2%                     | 1.133               | 0.023                   |
| ACEi                                                                      | 36,610          | 35.7%                     | 36,764      | 36.1%                     | -0.392              | -0.008                  |
| ARB                                                                       | 21,966          | 21.4%                     | 21,884      | 21.5%                     | -0.065              | -0.002                  |
| Beta Blockers                                                             | 27,126          | 26.4%                     | 27,170      | 26.7%                     | -0.222              | -0.005                  |
| Calcium Channel Blockers                                                  | 19,765          | 19.3%                     | 20,320      | 19.9%                     | -0.675              | -0.017                  |
| Statins                                                                   | 57,133          | 55.7%                     | 56,642      | 55.6%                     | 0.105               | 0.002                   |
| Any Diuretics                                                             | 28,116          | 27.4%                     | 29,297      | 28.7%                     | -1.344              | -0.030                  |
| Any NSAID                                                                 | 24,832          | 24.2%                     | 24,111      | 23.7%                     | 0.543               | 0.013                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.1             | 1.5                       | 2.1         | 1.5                       | -0.021              | -0.014                  |

**Table 11. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), No Obesity**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 17,022          | 16.6%   | 17,003      | 16.7%   | -0.093              | -0.003                  |
| Any ED Visits**                                                           | 8,770           | 8.5%    | 8,982       | 8.8%    | -0.266              | -0.009                  |
| Any IP Visits**                                                           | 3,755           | 3.7%    | 4,064       | 4.0%    | -0.327              | -0.017                  |
| No AV Visits                                                              | 22,010          | 21.4%   | 22,364      | 21.9%   | -0.492              | -0.012                  |
| 1-3 AV Visits**                                                           | 42,746          | 41.7%   | 41,751      | 41.0%   | 0.694               | 0.014                   |
| >3 AV Visits**                                                            | 37,873          | 36.9%   | 37,824      | 37.1%   | -0.202              | -0.004                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 19,757          | 19.3%   | 14,175      | 13.9%   | 5.345               | 0.144                   |
| Post-Index Insulin Initiation                                             | 13,162          | 12.8%   | 14,565      | 14.3%   | -1.463              | -0.043                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7)980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Unique patients                           | 56,369          | 100.0%             | 278,426     | 100.0%             |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 59.0            | 10.7               | 62.6        | 11.4               | -3.559              | -0.322                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 8,217           | 14.6%              | 30,786      | 11.1%              | 3.520               | 0.105                   |
| 45-54 years                               | 12,117          | 21.5%              | 45,519      | 16.3%              | 5.147               | 0.132                   |
| 55-64 years                               | 14,362          | 25.5%              | 61,682      | 22.2%              | 3.325               | 0.078                   |
| 65-74 years                               | 17,354          | 30.8%              | 95,325      | 34.2%              | -3.451              | -0.074                  |
| ≥ 75 years                                | 4,319           | 7.7%               | 45,114      | 16.2%              | -8.541              | -0.266                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 29,191          | 51.8%              | 158,481     | 56.9%              | -5.135              | -0.103                  |
| Male                                      | 27,178          | 48.2%              | 119,945     | 43.1%              | 5.135               | 0.103                   |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 291             | 0.5%               | 1,420       | 0.5%               | 0.006               | 0.001                   |
| Asian                                     | 601             | 1.1%               | 4,333       | 1.6%               | -0.490              | -0.043                  |
| Black or African American                 | 5,814           | 10.3%              | 39,669      | 14.2%              | -3.933              | -0.120                  |
| Multi-racial                              | 251             | 0.4%               | 1,165       | 0.4%               | 0.027               | 0.004                   |
| Native Hawaiian or Other Pacific Islander | 144             | 0.3%               | 651         | 0.2%               | 0.022               | 0.004                   |
| Unknown                                   | 16,803          | 29.8%              | 58,362      | 21.0%              | 8.848               | 0.204                   |
| White                                     | 32,465          | 57.6%              | 172,826     | 62.1%              | -4.479              | -0.091                  |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 3,088           | 5.5%               | 20,143      | 7.2%               | -1.756              | -0.072                  |
| No                                        | 37,624          | 66.7%              | 207,799     | 74.6%              | -7.888              | -0.174                  |
| Unknown                                   | 15,657          | 27.8%              | 50,484      | 18.1%              | 9.644               | 0.231                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 1,166           | 2.1%               | 14,824      | 5.3%               | -3.256              | -0.173                  |
| 2014                                      | 6,256           | 11.1%              | 22,851      | 8.2%               | 2.891               | 0.098                   |
| 2015                                      | 12,389          | 22.0%              | 25,903      | 9.3%               | 12.675              | 0.354                   |
| 2016                                      | 11,280          | 20.0%              | 28,536      | 10.2%              | 9.762               | 0.275                   |
| 2017                                      | 9,525           | 16.9%              | 36,804      | 13.2%              | 3.679               | 0.103                   |
| 2018                                      | 5,694           | 10.1%              | 35,614      | 12.8%              | -2.690              | -0.085                  |
| 2019+                                     | 10,059          | 17.8%              | 113,894     | 40.9%              | -23.061             | -0.523                  |

**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

|                                                                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                    |             |                    |                     |                         |
| Retinopathy*                                                                                         | 6,229           | 11.1%              | 33,714      | 12.1%              | -1.058              | -0.033                  |
| Nephropathy*                                                                                         | 5,606           | 9.9%               | 38,216      | 13.7%              | -3.781              | -0.117                  |
| Neuropathy*                                                                                          | 16,144          | 28.6%              | 84,992      | 30.5%              | -1.886              | -0.041                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 197             | 0.3%               | 1,532       | 0.6%               | -0.201              | -0.030                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 32,708          | 58.0%              | 152,724     | 54.9%              | 3.172               | 0.064                   |
| Hypertension*                                                                                        | 48,357          | 85.8%              | 242,199     | 87.0%              | -1.202              | -0.035                  |
| Dyslipidemia*                                                                                        | 45,668          | 81.0%              | 224,320     | 80.6%              | 0.449               | 0.011                   |
| Coronary Artery Disease*                                                                             | 13,147          | 23.3%              | 71,393      | 25.6%              | -2.319              | -0.054                  |
| Cerebrovascular Disease*                                                                             | 2,575           | 4.6%               | 18,250      | 6.6%               | -1.987              | -0.087                  |
| Peripheral Vascular Disease*                                                                         | 6,924           | 12.3%              | 44,758      | 16.1%              | -3.792              | -0.109                  |
| Congestive Heart Failure*                                                                            | 6,079           | 10.8%              | 39,317      | 14.1%              | -3.337              | -0.101                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 10,113          | 17.9%              | 56,601      | 20.3%              | -2.388              | -0.061                  |
| Depression*                                                                                          | 13,349          | 23.7%              | 70,467      | 25.3%              | -1.628              | -0.038                  |
| Obesity*                                                                                             | 56,369          | 100.0%             | 278,426     | 100.0%             | 0.000               | NaN                     |
| Cancer (Excluding NMSC)*                                                                             | 8,630           | 15.3%              | 51,665      | 18.6%              | -3.246              | -0.087                  |
| Hepatitis C Infection                                                                                | 555             | 1.0%               | 2,887       | 1.0%               | -0.052              | -0.005                  |
| History of Kidney Stones*                                                                            | 2,376           | 4.2%               | 13,542      | 4.9%               | -0.649              | -0.031                  |
| Sickle Cell Disease                                                                                  | 24              | 0.0%               | 119         | 0.0%               | -0.000              | -0.000                  |
| Smoking*                                                                                             | 13,496          | 23.9%              | 72,283      | 26.0%              | -2.019              | -0.047                  |
| Alcohol Use*                                                                                         | 1,357           | 2.4%               | 7,534       | 2.7%               | -0.299              | -0.019                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 51              | 0.1%               | 401         | 0.1%               | -0.054              | -0.016                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                    |             |                    |                     |                         |
| Metformin*                                                                                           | 51,471          | 91.3%              | 249,835     | 89.7%              | 1.580               | 0.054                   |
| Sulfonylureas*                                                                                       | 25,513          | 45.3%              | 126,021     | 45.3%              | -0.001              | -0.000                  |
| Thiazolidinediones*                                                                                  | 5,682           | 10.1%              | 20,550      | 7.4%               | 2.699               | 0.096                   |
| Alpha Glucosidase Inhibitor                                                                          | 307             | 0.5%               | 1,202       | 0.4%               | 0.113               | 0.016                   |
| Meglitinides                                                                                         | 609             | 1.1%               | 2,840       | 1.0%               | 0.060               | 0.006                   |
|                                                                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.5             | 0.6                | 1.4         | 0.6                | 0.045               | 0.076                   |

**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

|                                                                                               | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 32,191          | 57.1%              | 166,992     | 60.0%              | -2.870              | -0.058                  |
| 2                                                                                             | 21,202          | 37.6%              | 101,062     | 36.3%              | 1.315               | 0.027                   |
| 3                                                                                             | 2,913           | 5.2%               | 10,158      | 3.6%               | 1.519               | 0.074                   |
| 4+                                                                                            | 62              | 0.1%               | 214         | 0.1%               | 0.033               | 0.011                   |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0               | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 14,838          | 26.3%              | 40,784      | 14.6%              | 11.675              | 0.292                   |
| Short- and Rapid-Acting Insulin                                                               | 8,082           | 14.3%              | 18,797      | 6.8%               | 7.587               | 0.249                   |
| Combination Insulins                                                                          | 2,234           | 4.0%               | 5,111       | 1.8%               | 2.127               | 0.127                   |
| Any Insulin*                                                                                  | 17,221          | 30.6%              | 50,922      | 18.3%              | 12.261              | 0.288                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEIs)                                             | 28,076          | 49.8%              | 130,966     | 47.0%              | 2.770               | 0.055                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 16,594          | 29.4%              | 84,559      | 30.4%              | -0.932              | -0.020                  |
| Beta Blockers*                                                                                | 21,784          | 38.6%              | 114,559     | 41.1%              | -2.500              | -0.051                  |
| Calcium Channel Blockers*                                                                     | 15,639          | 27.7%              | 86,867      | 31.2%              | -3.455              | -0.076                  |
| Statins*                                                                                      | 39,788          | 70.6%              | 199,267     | 71.6%              | -0.984              | -0.022                  |
| Loop Diuretics                                                                                | 10,410          | 18.5%              | 55,604      | 20.0%              | -1.503              | -0.038                  |
| Other Diuretics                                                                               | 21,761          | 38.6%              | 107,708     | 38.7%              | -0.080              | -0.002                  |
| Any Diuretic*                                                                                 | 27,883          | 49.5%              | 140,943     | 50.6%              | -1.156              | -0.023                  |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 31,893          | 56.6%              | 151,002     | 54.2%              | 2.345               | 0.047                   |
| Count of CV Medication Classes During Baseline (Continuous)                                   | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 3.2             | 1.4                | 3.3         | 1.4                | -0.039              | -0.027                  |
| Influenza Vaccine*                                                                            | Number          | Percent            | Number      | Percent            |                     |                         |
|                                                                                               | 26,301          | 46.7%              | 135,511     | 48.7%              | -2.012              | -0.040                  |
| Pneumococcal Vaccine (Ever)*                                                                  | 20,664          | 36.7%              | 116,602     | 41.9%              | -5.221              | -0.107                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                 |                    |             |                    |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 20.8            | 17.5               | 21.8        | 19.2               | -1.074              | -0.058                  |

**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

|                                                                    | Medical Product |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| Number of AV Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0-4                                                                | 4,061           | 7.2%               | 19,921      | 7.2%               | 0.049               | 0.002                   |
| 5-10                                                               | 13,643          | 24.2%              | 62,431      | 22.4%              | 1.780               | 0.042                   |
| 11-15                                                              | 9,975           | 17.7%              | 47,661      | 17.1%              | 0.578               | 0.015                   |
| 16+                                                                | 28,690          | 50.9%              | 148,413     | 53.3%              | -2.408              | -0.048                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.8             | 2.1                | 0.9         | 2.3                | -0.075              | -0.034                  |
| Number of ED Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 36,303          | 64.4%              | 173,342     | 62.3%              | 2.145               | 0.045                   |
| 1                                                                  | 10,575          | 18.8%              | 54,144      | 19.4%              | -0.686              | -0.017                  |
| 2+                                                                 | 9,491           | 16.8%              | 50,940      | 18.3%              | -1.458              | -0.038                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.3             | 0.7                | 0.4         | 0.9                | -0.107              | -0.136                  |
| Number of IP Visits (Categorical)*                                 | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 46,279          | 82.1%              | 214,609     | 77.1%              | 5.021               | 0.125                   |
| 1                                                                  | 7,558           | 13.4%              | 44,077      | 15.8%              | -2.423              | -0.069                  |
| 2+                                                                 | 2,532           | 4.5%               | 19,740      | 7.1%               | -2.598              | -0.111                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                    |             |                    |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.5             | 1.6                | 1.7         | 1.8                | -0.254              | -0.147                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   | Number          | Percent            | Number      | Percent            |                     |                         |
| 0                                                                  | 22,000          | 39.0%              | 98,493      | 35.4%              | 3.654               | 0.076                   |
| 1                                                                  | 11,974          | 21.2%              | 53,740      | 19.3%              | 1.941               | 0.048                   |
| 2                                                                  | 9,423           | 16.7%              | 47,722      | 17.1%              | -0.423              | -0.011                  |
| 3+                                                                 | 12,972          | 23.0%              | 78,471      | 28.2%              | -5.171              | -0.119                  |
|                                                                    | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                | 0.2         | 0.1                | -0.009              | -0.175                  |

**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 3,437           | 6.1%               | 26,768      | 9.6%               | -3.517              | -0.131                  |
| <0.25                                                | 52,932          | 93.9%              | 251,658     | 90.4%              | 3.517               | 0.131                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.6             | 2.2                | 2.2         | 2.6                | -0.545              | -0.230                  |
| Combined Comorbidity Score Categories *              | Number          | Percent            | Number      | Percent            |                     |                         |
| <1                                                   | 20,719          | 36.8%              | 83,091      | 29.8%              | 6.913               | 0.147                   |
| 1                                                    | 12,191          | 21.6%              | 56,888      | 20.4%              | 1.195               | 0.029                   |
| 2                                                    | 8,475           | 15.0%              | 41,957      | 15.1%              | -0.034              | -0.001                  |
| 3+                                                   | 14,984          | 26.6%              | 96,490      | 34.7%              | -8.074              | -0.176                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 7,292           | 12.9%              | 39,643      | 14.2%              | -1.302              | -0.038                  |
| Nephropathy **                                       | 7,101           | 12.6%              | 48,085      | 17.3%              | -4.673              | -0.131                  |
| Neuropathy **                                        | 18,261          | 32.4%              | 95,530      | 34.3%              | -1.915              | -0.041                  |
| Any IPP or ED Hypoglycemia                           | 61              | 0.1%               | 471         | 0.2%               | -0.061              | -0.016                  |
| Any IPP, ED or Lab Hyperglycemia                     | 19,913          | 35.3%              | 94,298      | 33.9%              | 1.458               | 0.031                   |
| Frailty Indicators **                                | 12,318          | 21.9%              | 70,309      | 25.3%              | -3.400              | -0.080                  |
| Pneumococcal Vaccine **                              | 21,882          | 38.8%              | 122,422     | 44.0%              | -5.150              | -0.105                  |
| GLP-1RA or GIP/GLP-1RA **                            | 1,862           | 3.3%               | 6,110       | 2.2%               | 1.109               | 0.068                   |
| Insulin Initiation **                                | 1,299           | 2.3%               | 10,108      | 3.6%               | -1.326              | -0.078                  |
| Insulin or GLP-1RA                                   | 3,058           | 5.4%               | 15,701      | 5.6%               | -0.214              | -0.009                  |
| Influenza Vaccine **                                 | 26,717          | 47.4%              | 137,215     | 49.3%              | -1.886              | -0.038                  |
| Preventive Healthcare **                             | 53,156          | 94.3%              | 260,880     | 93.7%              | 0.602               | 0.025                   |
| Any HbA1c Test **                                    | 27,262          | 48.4%              | 129,596     | 46.5%              | 1.818               | 0.036                   |
| ACEis                                                | 22,849          | 40.5%              | 107,796     | 38.7%              | 1.818               | 0.037                   |
| ARBs                                                 | 14,709          | 26.1%              | 74,523      | 26.8%              | -0.672              | -0.015                  |
| Beta Blockers                                        | 18,601          | 33.0%              | 100,463     | 36.1%              | -3.084              | -0.065                  |
| Calcium Channel Blockers                             | 12,868          | 22.8%              | 73,295      | 26.3%              | -3.497              | -0.081                  |
| Statins                                              | 34,414          | 61.1%              | 174,668     | 62.7%              | -1.683              | -0.035                  |
| Any Diuretics                                        | 22,238          | 39.5%              | 117,028     | 42.0%              | -2.581              | -0.053                  |
| Any NSAID                                            | 18,682          | 33.1%              | 88,893      | 31.9%              | 1.215               | 0.026                   |



**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.6             | 1.4                | 2.6         | 1.4                | -0.085              | -0.059                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 3,857           | 6.8%               | 23,714      | 8.5%               | -1.675              | -0.063                  |
| Any ED Visits**                                                           | 7,275           | 12.9%              | 39,587      | 14.2%              | -1.312              | -0.038                  |
| Any IP Visits**                                                           | 2,845           | 5.0%               | 23,738      | 8.5%               | -3.479              | -0.139                  |
| No AV Visits                                                              | 4,169           | 7.4%               | 18,038      | 6.5%               | 0.917               | 0.036                   |
| 1-3 AV Visits**                                                           | 21,909          | 38.9%              | 100,303     | 36.0%              | 2.842               | 0.059                   |
| >3 AV Visits**                                                            | 30,291          | 53.7%              | 160,085     | 57.5%              | -3.759              | -0.076                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 8,088           | 14.3%              | 43,945      | 15.8%              | -1.435              | -0.040                  |
| Nephropathy**                                                             | 8,346           | 14.8%              | 54,982      | 19.7%              | -4.941              | -0.131                  |
| Neuropathy**                                                              | 19,860          | 35.2%              | 103,255     | 37.1%              | -1.853              | -0.039                  |
| Any IPP or ED Hypoglycemia                                                | 62              | 0.1%               | 397         | 0.1%               | -0.033              | -0.009                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 16,934          | 30.0%              | 77,642      | 27.9%              | 2.155               | 0.048                   |
| Frailty Indicators**                                                      | 12,872          | 22.8%              | 74,085      | 26.6%              | -3.773              | -0.088                  |
| Pneumococcal Vaccine**                                                    | 23,006          | 40.8%              | 126,914     | 45.6%              | -4.769              | -0.096                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,505           | 2.7%               | 6,628       | 2.4%               | 0.289               | 0.018                   |
| Insulin Initiation**                                                      | 12,669          | 22.5%              | 36,027      | 12.9%              | 9.536               | 0.252                   |
| Insulin or GLP-1RA Initiation                                             | 13,719          | 24.3%              | 41,314      | 14.8%              | 9.499               | 0.241                   |
| Influenza Vaccine**                                                       | 26,622          | 47.2%              | 136,712     | 49.1%              | -1.874              | -0.038                  |
| Preventive Healthcare**                                                   | 52,769          | 93.6%              | 258,926     | 93.0%              | 0.617               | 0.025                   |
| Any HbA1c Test**                                                          | 30,294          | 53.7%              | 144,615     | 51.9%              | 1.802               | 0.036                   |
| ACEi                                                                      | 21,269          | 37.7%              | 100,062     | 35.9%              | 1.793               | 0.037                   |
| ARB                                                                       | 13,986          | 24.8%              | 70,821      | 25.4%              | -0.625              | -0.014                  |
| Beta Blockers                                                             | 17,840          | 31.6%              | 95,158      | 34.2%              | -2.529              | -0.054                  |
| Calcium Channel Blockers                                                  | 12,283          | 21.8%              | 68,656      | 24.7%              | -2.868              | -0.068                  |
| Statins                                                                   | 32,796          | 58.2%              | 163,983     | 58.9%              | -0.716              | -0.015                  |
| Any Diuretics                                                             | 20,758          | 36.8%              | 109,035     | 39.2%              | -2.336              | -0.048                  |
| Any NSAID                                                                 | 17,581          | 31.2%              | 81,494      | 29.3%              | 1.920               | 0.042                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.4             | 1.5                | 2.5         | 1.5                | -0.054              | -0.036                  |

**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 10,170          | 18.0%                     | 49,506      | 17.8%                     | 0.261               | 0.007                   |
| Any ED Visits**                                                           | 6,784           | 12.0%                     | 35,699      | 12.8%                     | -0.787              | -0.024                  |
| Any IP Visits**                                                           | 2,859           | 5.1%                      | 17,929      | 6.4%                      | -1.367              | -0.059                  |
| No AV Visits                                                              | 7,544           | 13.4%                     | 38,117      | 13.7%                     | -0.307              | -0.009                  |
| 1-3 AV Visits**                                                           | 21,756          | 38.6%                     | 100,139     | 36.0%                     | 2.630               | 0.054                   |
| >3 AV Visits**                                                            | 27,069          | 48.0%                     | 140,170     | 50.3%                     | -2.323              | -0.046                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 8,800           | 15.6%                     | 47,738      | 17.1%                     | -1.534              | -0.041                  |
| Nephropathy**                                                             | 9,434           | 16.7%                     | 60,979      | 21.9%                     | -5.165              | -0.131                  |
| Neuropathy**                                                              | 21,380          | 37.9%                     | 109,787     | 39.4%                     | -1.503              | -0.031                  |
| Any IPP or ED Hypoglycemia                                                | 66              | 0.1%                      | 369         | 0.1%                      | -0.015              | -0.004                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 15,356          | 27.2%                     | 70,590      | 25.4%                     | 1.889               | 0.043                   |
| Frailty Indicators**                                                      | 13,449          | 23.9%                     | 77,302      | 27.8%                     | -3.905              | -0.089                  |
| Pneumococcal Vaccine**                                                    | 24,061          | 42.7%                     | 131,036     | 47.1%                     | -4.378              | -0.088                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,427           | 4.3%                      | 9,402       | 3.4%                      | 0.929               | 0.048                   |
| Insulin Initiation**                                                      | 2,454           | 4.4%                      | 13,614      | 4.9%                      | -0.536              | -0.026                  |
| Insulin or GLP-1RA Initiation                                             | 4,703           | 8.3%                      | 22,238      | 8.0%                      | 0.356               | 0.013                   |
| Influenza Vaccine**                                                       | 26,525          | 47.1%                     | 135,400     | 48.6%                     | -1.575              | -0.032                  |
| Preventive Healthcare**                                                   | 52,043          | 92.3%                     | 255,110     | 91.6%                     | 0.700               | 0.026                   |
| Any HbA1c Test**                                                          | 28,179          | 50.0%                     | 132,416     | 47.6%                     | 2.431               | 0.049                   |
| ACEi                                                                      | 20,063          | 35.6%                     | 93,377      | 33.5%                     | 2.055               | 0.043                   |
| ARB                                                                       | 13,407          | 23.8%                     | 67,551      | 24.3%                     | -0.477              | -0.011                  |
| Beta Blockers                                                             | 17,053          | 30.3%                     | 90,883      | 32.6%                     | -2.389              | -0.051                  |
| Calcium Channel Blockers                                                  | 11,660          | 20.7%                     | 65,288      | 23.4%                     | -2.764              | -0.067                  |
| Statins                                                                   | 31,413          | 55.7%                     | 155,899     | 56.0%                     | -0.266              | -0.005                  |
| Any Diuretics                                                             | 19,636          | 34.8%                     | 102,926     | 37.0%                     | -2.132              | -0.044                  |
| Any NSAID                                                                 | 16,642          | 29.5%                     | 76,543      | 27.5%                     | 2.032               | 0.045                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.5                       | 2.3         | 1.6                       | -0.039              | -0.026                  |

**Table 1m. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 9,776           | 17.3%   | 48,564      | 17.4%   | -0.099              | -0.003                  |
| Any ED Visits**                                                           | 6,440           | 11.4%   | 33,646      | 12.1%   | -0.660              | -0.020                  |
| Any IP Visits**                                                           | 2,771           | 4.9%    | 16,906      | 6.1%    | -1.156              | -0.051                  |
| No AV Visits                                                              | 10,024          | 17.8%   | 51,612      | 18.5%   | -0.754              | -0.020                  |
| 1-3 AV Visits**                                                           | 20,608          | 36.6%   | 95,368      | 34.3%   | 2.307               | 0.048                   |
| >3 AV Visits**                                                            | 25,737          | 45.7%   | 131,446     | 47.2%   | -1.552              | -0.031                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 14,522          | 25.8%   | 52,396      | 18.8%   | 6.944               | 0.167                   |
| Post-Index Insulin Initiation                                             | 6,853           | 12.2%   | 42,650      | 15.3%   | -3.161              | -0.092                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\* Covariate included in the treatment and censoring propensity score logistic regression models.

\*\* Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup> Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup> Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup> Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup> Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup> Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1n. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity**

| Patient Characteristics <sup>1</sup>      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 56,348          | N/A                | 55,832      | N/A                |                     |                         |
| Demographic Characteristics               | Mean            | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 59.0            | 10.7               | 59.1        | 10.7               | -0.057              | -0.005                  |
| Age                                       | Number          | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 8,215           | 14.6%              | 8,011       | 14.3%              | 0.231               | 0.007                   |
| 45-54 years                               | 12,108          | 21.5%              | 12,165      | 21.8%              | -0.301              | -0.008                  |
| 55-64 years                               | 14,357          | 25.5%              | 14,239      | 25.5%              | -0.025              | -0.001                  |
| 65-74 years                               | 17,354          | 30.8%              | 16,948      | 30.4%              | 0.443               | 0.011                   |
| ≥ 75 years                                | 4,314           | 7.7%               | 4,469       | 8.0%               | -0.348              | -0.013                  |
| Sex <sup>*</sup>                          |                 |                    |             |                    |                     |                         |
| Female                                    | 29,182          | 51.8%              | 28,934      | 51.8%              | -0.034              | -0.001                  |
| Male                                      | 27,166          | 48.2%              | 26,898      | 48.2%              | 0.034               | 0.001                   |
| Race <sup>2</sup>                         |                 |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 291             | 0.5%               | 286         | 0.5%               | 0.004               | 0.001                   |
| Asian                                     | 600             | 1.1%               | 724         | 1.3%               | -0.232              | -0.022                  |
| Black or African American                 | 5,813           | 10.3%              | 7,225       | 12.9%              | -2.624              | -0.083                  |
| Multi-racial                              | 250             | 0.4%               | 239         | 0.4%               | 0.015               | 0.002                   |
| Native Hawaiian or Other Pacific Islander | 144             | 0.3%               | 129         | 0.2%               | 0.024               | 0.005                   |
| Unknown                                   | 16,792          | 29.8%              | 16,958      | 30.4%              | -0.573              | -0.017                  |
| White                                     | 32,458          | 57.6%              | 30,271      | 54.2%              | 3.385               | 0.081                   |
| Hispanic origin <sup>2</sup>              |                 |                    |             |                    |                     |                         |
| Yes                                       | 3,086           | 5.5%               | 3,748       | 6.7%               | -1.236              | -0.054                  |
| No                                        | 37,616          | 66.8%              | 37,046      | 66.4%              | 0.405               | 0.013                   |
| Unknown                                   | 15,646          | 27.8%              | 15,039      | 26.9%              | 0.831               | 0.033                   |
| Year <sup>*</sup>                         |                 |                    |             |                    |                     |                         |
| 2013                                      | 1,165           | 2.1%               | 1,157       | 2.1%               | -0.005              | -0.000                  |
| 2014                                      | 6,256           | 11.1%              | 6,138       | 11.0%              | 0.108               | 0.003                   |
| 2015                                      | 12,378          | 22.0%              | 11,949      | 21.4%              | 0.565               | 0.014                   |
| 2016                                      | 11,274          | 20.0%              | 11,167      | 20.0%              | 0.007               | 0.000                   |
| 2017                                      | 9,525           | 16.9%              | 9,568       | 17.1%              | -0.233              | -0.006                  |
| 2018                                      | 5,693           | 10.1%              | 5,730       | 10.3%              | -0.159              | -0.005                  |
| 2019+                                     | 10,057          | 17.8%              | 10,123      | 18.1%              | -0.282              | -0.008                  |

**Table 1n. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity**

|                                                                                                      | Medical Product |                           |             |                           | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                                                      | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                                                      | Number          | Percent                   | Number      | Percent                   |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                 |                           |             |                           |                     |                         |
| Retinopathy*                                                                                         | 6,226           | 11.0%                     | 6,156       | 11.0%                     | 0.024               | 0.001                   |
| Nephropathy*                                                                                         | 5,604           | 9.9%                      | 5,612       | 10.1%                     | -0.107              | -0.004                  |
| Neuropathy*                                                                                          | 16,141          | 28.6%                     | 16,053      | 28.8%                     | -0.107              | -0.002                  |
| Any IPP or ED Hypoglycemia Visit                                                                     | 197             | 0.3%                      | 236         | 0.4%                      | -0.073              | -0.012                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 32,691          | 58.0%                     | 32,230      | 57.7%                     | 0.290               | 0.006                   |
| Hypertension*                                                                                        | 48,339          | 85.8%                     | 47,860      | 85.7%                     | 0.065               | 0.002                   |
| Dyslipidemia*                                                                                        | 45,648          | 81.0%                     | 45,109      | 80.8%                     | 0.218               | 0.006                   |
| Coronary Artery Disease*                                                                             | 13,143          | 23.3%                     | 13,040      | 23.4%                     | -0.032              | -0.001                  |
| Cerebrovascular Disease*                                                                             | 2,574           | 4.6%                      | 2,572       | 4.6%                      | -0.038              | -0.002                  |
| Peripheral Vascular Disease*                                                                         | 6,919           | 12.3%                     | 6,887       | 12.3%                     | -0.057              | -0.002                  |
| Congestive Heart Failure*                                                                            | 6,077           | 10.8%                     | 6,092       | 10.9%                     | -0.126              | -0.004                  |
| Chronic Obstructive Pulmonary Disease*                                                               | 10,110          | 17.9%                     | 10,077      | 18.0%                     | -0.107              | -0.003                  |
| Depression*                                                                                          | 13,345          | 23.7%                     | 13,260      | 23.7%                     | -0.066              | -0.002                  |
| Obesity*                                                                                             | 56,348          | 100.0%                    | 55,832      | 100.0%                    | 0.000               | NaN                     |
| Cancer (Excluding NMSC)*                                                                             | 8,629           | 15.3%                     | 8,587       | 15.4%                     | -0.066              | -0.002                  |
| Hepatitis C Infection                                                                                | 555             | 1.0%                      | 587         | 1.1%                      | -0.066              | -0.007                  |
| History of Kidney Stones*                                                                            | 2,376           | 4.2%                      | 2,368       | 4.2%                      | -0.024              | -0.001                  |
| Sickle Cell Disease                                                                                  | 24              | 0.0%                      | 24          | 0.0%                      | -0.001              | -0.000                  |
| Smoking*                                                                                             | 13,493          | 23.9%                     | 13,443      | 24.1%                     | -0.132              | -0.003                  |
| Alcohol Use*                                                                                         | 1,357           | 2.4%                      | 1,367       | 2.4%                      | -0.040              | -0.003                  |
| Any History of RCC (Ever)                                                                            | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0               | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 51              | 0.1%                      | 64          | 0.1%                      | -0.025              | -0.008                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                 |                           |             |                           |                     |                         |
| Metformin*                                                                                           | 51,450          | 91.3%                     | 50,952      | 91.3%                     | 0.048               | 0.002                   |
| Sulfonylureas*                                                                                       | 25,503          | 45.3%                     | 25,399      | 45.5%                     | -0.231              | -0.005                  |
| Thiazolidinediones*                                                                                  | 5,671           | 10.1%                     | 5,580       | 10.0%                     | 0.069               | 0.002                   |
| Alpha Glucosidase Inhibitor                                                                          | 307             | 0.5%                      | 260         | 0.5%                      | 0.079               | 0.011                   |
| Meglitinides                                                                                         | 609             | 1.1%                      | 553         | 1.0%                      | 0.090               | 0.009                   |
|                                                                                                      | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.5             | 0.6                       | 1.5         | 0.6                       | 0.001               | 0.001                   |



**Table 1n. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity**

|                                                                    | Medical Product |                           |             |                           | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                    | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                    | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Number of AV Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0-4                                                                | 4,058           | 7.2%                      | 3,997       | 7.2%                      | 0.043               | 0.002                   |
| 5-10                                                               | 13,639          | 24.2%                     | 13,545      | 24.3%                     | -0.055              | -0.001                  |
| 11-15                                                              | 9,973           | 17.7%                     | 9,833       | 17.6%                     | 0.088               | 0.002                   |
| 16+                                                                | 28,678          | 50.9%                     | 28,458      | 51.0%                     | -0.075              | -0.002                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.8             | 2.1                       | 0.9         | 2.2                       | -0.020              | -0.009                  |
| Number of ED Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0                                                                  | 36,288          | 64.4%                     | 35,869      | 64.2%                     | 0.155               | 0.003                   |
| 1                                                                  | 10,572          | 18.8%                     | 10,493      | 18.8%                     | -0.032              | -0.001                  |
| 2+                                                                 | 9,488           | 16.8%                     | 9,470       | 17.0%                     | -0.123              | -0.003                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.3             | 0.7                       | 0.3         | 0.7                       | -0.012              | -0.018                  |
| Number of IP Visits (Categorical)*                                 |                 |                           |             |                           |                     |                         |
| 0                                                                  | 46,259          | 82.1%                     | 45,778      | 82.0%                     | 0.103               | 0.003                   |
| 1                                                                  | 7,557           | 13.4%                     | 7,514       | 13.5%                     | -0.047              | -0.001                  |
| 2+                                                                 | 2,532           | 4.5%                      | 2,540       | 4.5%                      | -0.056              | -0.003                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                 |                           |             |                           |                     |                         |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.5             | 1.6                       | 1.5         | 1.7                       | -0.014              | -0.008                  |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   |                 |                           |             |                           |                     |                         |
| 0                                                                  | 21,995          | 39.0%                     | 21,781      | 39.0%                     | 0.022               | 0.000                   |
| 1                                                                  | 11,967          | 21.2%                     | 11,807      | 21.1%                     | 0.091               | 0.002                   |
| 2                                                                  | 9,420           | 16.7%                     | 9,295       | 16.6%                     | 0.070               | 0.002                   |
| 3+                                                                 | 12,966          | 23.0%                     | 12,950      | 23.2%                     | -0.183              | -0.004                  |
|                                                                    | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2             | 0.0                       | 0.2         | 0.0                       | -0.002              | -0.032                  |

**Table 1n. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity**

|                                                      | Medical Product |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number          | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                 |                    |             |                    |                     |                         |
| 0.25+                                                | 3,436           | 6.1%               | 3,436       | 6.2%               | -0.056              | -0.002                  |
| <0.25                                                | 52,912          | 93.9%              | 52,397      | 93.8%              | 0.056               | 0.002                   |
|                                                      | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.6             | 2.2                | 1.7         | 2.2                | -0.045              | -0.021                  |
| Combined Comorbidity Score Categories *              |                 |                    |             |                    |                     |                         |
| <1                                                   | 20,709          | 36.8%              | 20,360      | 36.5%              | 0.286               | 0.006                   |
| 1                                                    | 12,186          | 21.6%              | 12,048      | 21.6%              | 0.047               | 0.001                   |
| 2                                                    | 8,473           | 15.0%              | 8,449       | 15.1%              | -0.096              | -0.003                  |
| 3+                                                   | 14,980          | 26.6%              | 14,975      | 26.8%              | -0.237              | -0.006                  |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                 |                    |             |                    |                     |                         |
| Retinopathy **                                       | 7,288           | 12.9%              | 7,317       | 13.1%              | -0.171              | -0.005                  |
| Nephropathy **                                       | 7,098           | 12.6%              | 7,431       | 13.3%              | -0.712              | -0.021                  |
| Neuropathy **                                        | 18,255          | 32.4%              | 18,210      | 32.6%              | -0.219              | -0.005                  |
| Any IPP or ED Hypoglycemia                           | 61              | 0.1%               | 78          | 0.1%               | -0.031              | -0.009                  |
| Any IPP, ED or Lab Hyperglycemia                     | 19,902          | 35.3%              | 19,961      | 35.8%              | -0.431              | -0.009                  |
| Frailty Indicators **                                | 12,313          | 21.9%              | 12,326      | 22.1%              | -0.226              | -0.006                  |
| Pneumococcal Vaccine **                              | 21,878          | 38.8%              | 21,906      | 39.2%              | -0.409              | -0.009                  |
| GLP-1RA or GIP/GLP-1RA **                            | 1,861           | 3.3%               | 1,174       | 2.1%               | 1.200               | 0.074                   |
| Insulin Initiation **                                | 1,298           | 2.3%               | 1,597       | 2.9%               | -0.557              | -0.035                  |
| Insulin or GLP-1RA                                   | 3,056           | 5.4%               | 2,689       | 4.8%               | 0.608               | 0.028                   |
| Influenza Vaccine **                                 | 26,704          | 47.4%              | 26,466      | 47.4%              | -0.012              | -0.000                  |
| Preventive Healthcare **                             | 53,137          | 94.3%              | 52,491      | 94.0%              | 0.286               | 0.012                   |
| Any HbA1c Test **                                    | 27,249          | 48.4%              | 26,272      | 47.1%              | 1.303               | 0.026                   |
| ACEis                                                | 22,846          | 40.5%              | 22,934      | 41.1%              | -0.532              | -0.011                  |
| ARBs                                                 | 14,698          | 26.1%              | 14,714      | 26.4%              | -0.270              | -0.006                  |
| Beta Blockers                                        | 18,591          | 33.0%              | 18,986      | 34.0%              | -1.012              | -0.022                  |
| Calcium Channel Blockers                             | 12,866          | 22.8%              | 13,245      | 23.7%              | -0.890              | -0.021                  |
| Statins                                              | 34,397          | 61.0%              | 34,471      | 61.7%              | -0.696              | -0.014                  |
| Any Diuretics                                        | 22,228          | 39.4%              | 22,988      | 41.2%              | -1.726              | -0.035                  |
| Any NSAID                                            | 18,673          | 33.1%              | 18,762      | 33.6%              | -0.466              | -0.010                  |



**Table 1n. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity**

|                                                                           | Medical Product |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.6             | 1.4                | 2.6         | 1.4                | -0.056              | -0.039                  |
|                                                                           | Number          | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 3,857           | 6.8%               | 4,725       | 8.5%               | -1.618              | -0.061                  |
| Any ED Visits**                                                           | 7,273           | 12.9%              | 7,574       | 13.6%              | -0.658              | -0.020                  |
| Any IP Visits**                                                           | 2,844           | 5.0%               | 3,765       | 6.7%               | -1.697              | -0.072                  |
| No AV Visits                                                              | 4,168           | 7.4%               | 3,795       | 6.8%               | 0.600               | 0.024                   |
| 1-3 AV Visits**                                                           | 21,902          | 38.9%              | 21,233      | 38.0%              | 0.839               | 0.017                   |
| >3 AV Visits**                                                            | 30,278          | 53.7%              | 30,804      | 55.2%              | -1.439              | -0.030                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                 |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 8,084           | 14.3%              | 8,132       | 14.6%              | -0.219              | -0.006                  |
| Nephropathy**                                                             | 8,343           | 14.8%              | 8,739       | 15.7%              | -0.846              | -0.024                  |
| Neuropathy**                                                              | 19,853          | 35.2%              | 19,833      | 35.5%              | -0.290              | -0.006                  |
| Any IPP or ED Hypoglycemia                                                | 62              | 0.1%               | 76          | 0.1%               | -0.027              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 16,927          | 30.0%              | 16,620      | 29.8%              | 0.273               | 0.006                   |
| Frailty Indicators**                                                      | 12,866          | 22.8%              | 13,046      | 23.4%              | -0.534              | -0.013                  |
| Pneumococcal Vaccine**                                                    | 23,000          | 40.8%              | 22,924      | 41.1%              | -0.242              | -0.005                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 1,504           | 2.7%               | 1,266       | 2.3%               | 0.402               | 0.026                   |
| Insulin Initiation**                                                      | 12,659          | 22.5%              | 11,205      | 20.1%              | 2.396               | 0.059                   |
| Insulin or GLP-1RA Initiation                                             | 13,708          | 24.3%              | 12,079      | 21.6%              | 2.693               | 0.064                   |
| Influenza Vaccine**                                                       | 26,611          | 47.2%              | 26,376      | 47.2%              | -0.016              | -0.000                  |
| Preventive Healthcare**                                                   | 52,751          | 93.6%              | 52,122      | 93.4%              | 0.262               | 0.011                   |
| Any HbA1c Test**                                                          | 30,281          | 53.7%              | 29,345      | 52.6%              | 1.179               | 0.024                   |
| ACEi                                                                      | 21,265          | 37.7%              | 21,329      | 38.2%              | -0.463              | -0.010                  |
| ARB                                                                       | 13,978          | 24.8%              | 13,972      | 25.0%              | -0.219              | -0.005                  |
| Beta Blockers                                                             | 17,831          | 31.6%              | 18,036      | 32.3%              | -0.660              | -0.014                  |
| Calcium Channel Blockers                                                  | 12,279          | 21.8%              | 12,488      | 22.4%              | -0.575              | -0.014                  |
| Statins                                                                   | 32,784          | 58.2%              | 32,412      | 58.1%              | 0.129               | 0.003                   |
| Any Diuretics                                                             | 20,751          | 36.8%              | 21,508      | 38.5%              | -1.697              | -0.035                  |
| Any NSAID                                                                 | 17,575          | 31.2%              | 17,319      | 31.0%              | 0.171               | 0.004                   |
|                                                                           | Mean            | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.4             | 1.5                | 2.5         | 1.5                | -0.033              | -0.022                  |

**Table 1n. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity**

|                                                                           | Medical Product |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 10,168          | 18.0%                     | 9,960       | 17.8%                     | 0.207               | 0.005                   |
| Any ED Visits**                                                           | 6,784           | 12.0%                     | 7,086       | 12.7%                     | -0.652              | -0.020                  |
| Any IP Visits**                                                           | 2,857           | 5.1%                      | 3,074       | 5.5%                      | -0.435              | -0.020                  |
| No AV Visits                                                              | 7,538           | 13.4%                     | 7,703       | 13.8%                     | -0.418              | -0.012                  |
| 1-3 AV Visits**                                                           | 21,750          | 38.6%                     | 20,982      | 37.6%                     | 1.019               | 0.021                   |
| >3 AV Visits**                                                            | 27,060          | 48.0%                     | 27,148      | 48.6%                     | -0.600              | -0.012                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                 |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 8,795           | 15.6%                     | 8,871       | 15.9%                     | -0.281              | -0.008                  |
| Nephropathy**                                                             | 9,430           | 16.7%                     | 9,888       | 17.7%                     | -0.975              | -0.026                  |
| Neuropathy**                                                              | 21,371          | 37.9%                     | 21,286      | 38.1%                     | -0.198              | -0.004                  |
| Any IPP or ED Hypoglycemia                                                | 66              | 0.1%                      | 75          | 0.1%                      | -0.018              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 15,350          | 27.2%                     | 15,241      | 27.3%                     | -0.057              | -0.001                  |
| Frailty Indicators**                                                      | 13,443          | 23.9%                     | 13,634      | 24.4%                     | -0.562              | -0.013                  |
| Pneumococcal Vaccine**                                                    | 24,055          | 42.7%                     | 23,872      | 42.8%                     | -0.066              | -0.001                  |
| GLP-1RA or GIP/GLP-1RA**                                                  | 2,426           | 4.3%                      | 1,857       | 3.3%                      | 0.978               | 0.051                   |
| Insulin Initiation**                                                      | 2,454           | 4.4%                      | 2,869       | 5.1%                      | -0.784              | -0.037                  |
| Insulin or GLP-1RA Initiation                                             | 4,702           | 8.3%                      | 4,564       | 8.2%                      | 0.170               | 0.006                   |
| Influenza Vaccine**                                                       | 26,514          | 47.1%                     | 26,132      | 46.8%                     | 0.249               | 0.005                   |
| Preventive Healthcare**                                                   | 52,026          | 92.3%                     | 51,452      | 92.2%                     | 0.175               | 0.007                   |
| Any HbA1c Test**                                                          | 28,167          | 50.0%                     | 27,200      | 48.7%                     | 1.270               | 0.026                   |
| ACEi                                                                      | 20,058          | 35.6%                     | 19,984      | 35.8%                     | -0.197              | -0.004                  |
| ARB                                                                       | 13,400          | 23.8%                     | 13,375      | 24.0%                     | -0.175              | -0.004                  |
| Beta Blockers                                                             | 17,046          | 30.3%                     | 17,341      | 31.1%                     | -0.807              | -0.018                  |
| Calcium Channel Blockers                                                  | 11,656          | 20.7%                     | 11,970      | 21.4%                     | -0.753              | -0.019                  |
| Statins                                                                   | 31,399          | 55.7%                     | 30,921      | 55.4%                     | 0.342               | 0.007                   |
| Any Diuretics                                                             | 19,631          | 34.8%                     | 20,344      | 36.4%                     | -1.600              | -0.034                  |
| Any NSAID                                                                 | 16,634          | 29.5%                     | 16,380      | 29.3%                     | 0.183               | 0.004                   |
|                                                                           | <b>Mean</b>     | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.3             | 1.5                       | 2.3         | 1.6                       | -0.030              | -0.020                  |

**Table 1n. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%), Obesity**

|                                                                           | Medical Product |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | Canagliflozin   |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number          | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 9,770           | 17.3%   | 9,904       | 17.7%   | -0.400              | -0.011                  |
| Any ED Visits**                                                           | 6,438           | 11.4%   | 6,739       | 12.1%   | -0.645              | -0.020                  |
| Any IP Visits**                                                           | 2,771           | 4.9%    | 2,981       | 5.3%    | -0.422              | -0.019                  |
| No AV Visits                                                              | 10,019          | 17.8%   | 10,252      | 18.4%   | -0.582              | -0.015                  |
| 1-3 AV Visits**                                                           | 20,601          | 36.6%   | 19,887      | 35.6%   | 0.940               | 0.020                   |
| >3 AV Visits**                                                            | 25,728          | 45.7%   | 25,693      | 46.0%   | -0.358              | -0.007                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                 |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 14,517          | 25.8%   | 11,176      | 20.0%   | 5.745               | 0.137                   |
| Post-Index Insulin Initiation                                             | 6,850           | 12.2%   | 7,792       | 14.0%   | -1.800              | -0.054                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

| Patient Characteristics <sup>1</sup>      | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number                | Percent            | Number      | Percent            |                     |                         |
| Unique patients                           | 1,048,376             | 100.0%             | 916,421     | 100.0%             |                     |                         |
| Demographic Characteristics               | Mean                  | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 63.7                  | 10.3               | 65.2        | 11.1               | -1.542              | -0.144                  |
| Age                                       | Number                | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 92,837                | 8.9%               | 74,693      | 8.2%               | 0.705               | 0.025                   |
| 45-54 years                               | 161,630               | 15.4%              | 128,659     | 14.0%              | 1.378               | 0.039                   |
| 55-64 years                               | 243,341               | 23.2%              | 192,155     | 21.0%              | 2.243               | 0.054                   |
| 65-74 years                               | 362,552               | 34.6%              | 305,886     | 33.4%              | 1.204               | 0.025                   |
| ≥ 75 years                                | 188,016               | 17.9%              | 215,028     | 23.5%              | -5.530              | -0.137                  |
| Sex <sup>*</sup>                          |                       |                    |             |                    |                     |                         |
| Female                                    | 465,439               | 44.4%              | 485,655     | 53.0%              | -8.599              | -0.173                  |
| Male                                      | 582,937               | 55.6%              | 430,766     | 47.0%              | 8.599               | 0.173                   |
| Race <sup>2</sup>                         |                       |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 6,711                 | 0.6%               | 5,105       | 0.6%               | 0.083               | 0.011                   |
| Asian                                     | 43,927                | 4.2%               | 42,807      | 4.7%               | -0.481              | -0.023                  |
| Black or African American                 | 107,165               | 10.2%              | 115,181     | 12.6%              | -2.347              | -0.074                  |
| Multi-racial                              | 5,955                 | 0.6%               | 3,462       | 0.4%               | 0.190               | 0.028                   |
| Native Hawaiian or Other Pacific Islander | 4,206                 | 0.4%               | 3,087       | 0.3%               | 0.064               | 0.011                   |
| Unknown                                   | 285,049               | 27.2%              | 205,969     | 22.5%              | 4.714               | 0.109                   |
| White                                     | 595,363               | 56.8%              | 540,810     | 59.0%              | -2.224              | -0.045                  |
| Hispanic origin <sup>2</sup>              |                       |                    |             |                    |                     |                         |
| Yes                                       | 77,168                | 7.4%               | 69,954      | 7.6%               | -0.273              | -0.010                  |
| No                                        | 698,409               | 66.6%              | 675,643     | 73.7%              | -7.108              | -0.156                  |
| Unknown                                   | 272,799               | 26.0%              | 170,824     | 18.6%              | 7.381               | 0.178                   |
| Year <sup>*</sup>                         |                       |                    |             |                    |                     |                         |
| 2013                                      | 4,031                 | 0.4%               | 71,107      | 7.8%               | -7.375              | -0.380                  |
| 2014                                      | 26,101                | 2.5%               | 97,194      | 10.6%              | -8.116              | -0.333                  |
| 2015                                      | 49,514                | 4.7%               | 97,874      | 10.7%              | -5.957              | -0.225                  |
| 2016                                      | 51,205                | 4.9%               | 98,036      | 10.7%              | -5.813              | -0.218                  |
| 2017                                      | 69,983                | 6.7%               | 118,112     | 12.9%              | -6.213              | -0.210                  |
| 2018                                      | 70,320                | 6.7%               | 106,820     | 11.7%              | -4.949              | -0.172                  |
| 2019+                                     | 777,222               | 74.1%              | 327,278     | 35.7%              | 38.423              | 0.837                   |

**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                                      | Medical Product       |                           |             |                           | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------------------|-----------------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                                                      | All SGLT-2 Inhibitors |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                                                      | Number                | Percent                   | Number      | Percent                   |                     |                         |
| <b>Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted)</b> |                       |                           |             |                           |                     |                         |
| Retinopathy*                                                                                         | 146,478               | 14.0%                     | 113,875     | 12.4%                     | 1.546               | 0.046                   |
| Nephropathy*                                                                                         | 135,476               | 12.9%                     | 103,638     | 11.3%                     | 1.613               | 0.049                   |
| Neuropathy*                                                                                          | 286,332               | 27.3%                     | 226,872     | 24.8%                     | 2.556               | 0.058                   |
| Any IPP or ED Hypoglycemia Visit                                                                     | 4,579                 | 0.4%                      | 4,884       | 0.5%                      | -0.096              | -0.014                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                            | 544,363               | 51.9%                     | 451,489     | 49.3%                     | 2.658               | 0.053                   |
| Hypertension*                                                                                        | 865,607               | 82.6%                     | 758,251     | 82.7%                     | -0.174              | -0.005                  |
| Dyslipidemia*                                                                                        | 834,293               | 79.6%                     | 713,453     | 77.9%                     | 1.727               | 0.042                   |
| Coronary Artery Disease*                                                                             | 285,789               | 27.3%                     | 211,565     | 23.1%                     | 4.174               | 0.096                   |
| Cerebrovascular Disease*                                                                             | 57,382                | 5.5%                      | 59,644      | 6.5%                      | -1.035              | -0.044                  |
| Peripheral Vascular Disease*                                                                         | 152,589               | 14.6%                     | 133,118     | 14.5%                     | 0.029               | 0.001                   |
| Congestive Heart Failure*                                                                            | 153,787               | 14.7%                     | 94,672      | 10.3%                     | 4.338               | 0.131                   |
| Chronic Obstructive Pulmonary Disease*                                                               | 150,452               | 14.4%                     | 141,813     | 15.5%                     | -1.124              | -0.032                  |
| Depression*                                                                                          | 176,105               | 16.8%                     | 174,204     | 19.0%                     | -2.211              | -0.058                  |
| Obesity*                                                                                             | 405,135               | 38.6%                     | 276,793     | 30.2%                     | 8.440               | 0.178                   |
| Cancer (Excluding NMSC)*                                                                             | 185,859               | 17.7%                     | 163,281     | 17.8%                     | -0.089              | -0.002                  |
| Hepatitis C Infection                                                                                | 8,748                 | 0.8%                      | 9,296       | 1.0%                      | -0.180              | -0.019                  |
| History of Kidney Stones*                                                                            | 43,217                | 4.1%                      | 35,992      | 3.9%                      | 0.195               | 0.010                   |
| Sickle Cell Disease                                                                                  | 313                   | 0.0%                      | 302         | 0.0%                      | -0.003              | -0.002                  |
| Smoking*                                                                                             | 239,175               | 22.8%                     | 180,518     | 19.7%                     | 3.116               | 0.076                   |
| Alcohol Use*                                                                                         | 26,104                | 2.5%                      | 21,115      | 2.3%                      | 0.186               | 0.012                   |
| Any History of RCC (Ever)                                                                            | 0                     | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                         | 0                     | 0.0%                      | 0           | 0.0%                      | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                                     | 1,134                 | 0.1%                      | 1,192       | 0.1%                      | -0.022              | -0.006                  |
| <b>Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)</b>    |                       |                           |             |                           |                     |                         |
| Metformin*                                                                                           | 965,190               | 92.1%                     | 818,561     | 89.3%                     | 2.744               | 0.095                   |
| Sulfonylureas*                                                                                       | 404,247               | 38.6%                     | 435,116     | 47.5%                     | -8.921              | -0.181                  |
| Thiazolidinediones*                                                                                  | 86,116                | 8.2%                      | 67,329      | 7.3%                      | 0.867               | 0.032                   |
| Alpha Glucosidase Inhibitor                                                                          | 4,257                 | 0.4%                      | 4,568       | 0.5%                      | -0.092              | -0.014                  |
| Meglitinides                                                                                         | 9,964                 | 1.0%                      | 11,674      | 1.3%                      | -0.323              | -0.031                  |
|                                                                                                      | <b>Mean</b>           | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                                     | 1.4                   | 0.6                       | 1.5         | 0.6                       | -0.057              | -0.100                  |

**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number                | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 669,173               | 63.8%              | 531,837     | 58.0%              | 5.795               | 0.119                   |
| 2                                                                                             | 337,876               | 32.2%              | 349,215     | 38.1%              | -5.878              | -0.123                  |
| 3                                                                                             | 40,463                | 3.9%               | 34,511      | 3.8%               | 0.094               | 0.005                   |
| 4+                                                                                            | 862                   | 0.1%               | 858         | 0.1%               | -0.011              | -0.004                  |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | *****                 | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 197,662               | 18.9%              | 121,184     | 13.2%              | 5.630               | 0.154                   |
| Short- and Rapid-Acting Insulin                                                               | 91,016                | 8.7%               | 50,538      | 5.5%               | 3.167               | 0.124                   |
| Combination Insulins                                                                          | 21,159                | 2.0%               | 13,798      | 1.5%               | 0.513               | 0.039                   |
| Any Insulin*                                                                                  | 229,392               | 21.9%              | 149,830     | 16.3%              | 5.531               | 0.141                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 463,547               | 44.2%              | 429,832     | 46.9%              | -2.688              | -0.054                  |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 338,148               | 32.3%              | 257,450     | 28.1%              | 4.161               | 0.091                   |
| Beta Blockers*                                                                                | 422,544               | 40.3%              | 342,535     | 37.4%              | 2.927               | 0.060                   |
| Calcium Channel Blockers*                                                                     | 312,640               | 29.8%              | 271,472     | 29.6%              | 0.198               | 0.004                   |
| Statins*                                                                                      | 805,712               | 76.9%              | 658,741     | 71.9%              | 4.971               | 0.114                   |
| Loop Diuretics                                                                                | 163,549               | 15.6%              | 128,869     | 14.1%              | 1.538               | 0.043                   |
| Other Diuretics                                                                               | 357,270               | 34.1%              | 308,450     | 33.7%              | 0.420               | 0.009                   |
| Any Diuretic*                                                                                 | 450,927               | 43.0%              | 389,492     | 42.5%              | 0.511               | 0.010                   |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 458,557               | 43.7%              | 436,440     | 47.6%              | -3.885              | -0.078                  |
|                                                                                               |                       |                    |             |                    |                     |                         |
|                                                                                               | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | 3.1                   | 1.4                | 3.0         | 1.4                | 0.062               | 0.043                   |
|                                                                                               |                       |                    |             |                    |                     |                         |
|                                                                                               | Number                | Percent            | Number      | Percent            |                     |                         |
| Influenza Vaccine*                                                                            | 505,643               | 48.2%              | 438,846     | 47.9%              | 0.344               | 0.007                   |
| Pneumococcal Vaccine (Ever)*                                                                  | 449,998               | 42.9%              | 364,945     | 39.8%              | 3.100               | 0.063                   |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                       |                    |             |                    |                     |                         |
|                                                                                               | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | 18.2                  | 17.1               | 18.4        | 17.9               | -0.196              | -0.011                  |

**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                    | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                    | Number                | Percent            | Number      | Percent            |                     |                         |
| Number of AV Visits (Categorical)*                                 |                       |                    |             |                    |                     |                         |
| 0-4                                                                | 125,614               | 12.0%              | 107,358     | 11.7%              | 0.267               | 0.008                   |
| 5-10                                                               | 289,652               | 27.6%              | 249,486     | 27.2%              | 0.405               | 0.009                   |
| 11-15                                                              | 182,480               | 17.4%              | 161,761     | 17.7%              | -0.245              | -0.006                  |
| 16+                                                                | 450,630               | 43.0%              | 397,816     | 43.4%              | -0.426              | -0.009                  |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.6                   | 1.7                | 0.7         | 1.8                | -0.042              | -0.024                  |
| Number of ED Visits (Categorical)*                                 |                       |                    |             |                    |                     |                         |
| 0                                                                  | 730,828               | 69.7%              | 625,865     | 68.3%              | 1.416               | 0.031                   |
| 1                                                                  | 182,480               | 17.4%              | 164,668     | 18.0%              | -0.563              | -0.015                  |
| 2+                                                                 | 135,068               | 12.9%              | 125,888     | 13.7%              | -0.853              | -0.025                  |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2                   | 0.6                | 0.2         | 0.7                | -0.029              | -0.043                  |
| Number of IP Visits (Categorical)*                                 |                       |                    |             |                    |                     |                         |
| 0                                                                  | 889,707               | 84.9%              | 765,625     | 83.5%              | 1.320               | 0.036                   |
| 1                                                                  | 116,680               | 11.1%              | 107,580     | 11.7%              | -0.610              | -0.019                  |
| 2+                                                                 | 41,989                | 4.0%               | 43,216      | 4.7%               | -0.711              | -0.035                  |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                       |                    |             |                    |                     |                         |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.6                   | 1.8                | 1.5         | 1.7                | 0.092               | 0.052                   |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   |                       |                    |             |                    |                     |                         |
| 0                                                                  | 396,015               | 37.8%              | 364,491     | 39.8%              | -1.999              | -0.041                  |
| 1                                                                  | 201,590               | 19.2%              | 181,823     | 19.8%              | -0.612              | -0.015                  |
| 2                                                                  | 181,275               | 17.3%              | 148,743     | 16.2%              | 1.060               | 0.028                   |
| 3+                                                                 | 269,496               | 25.7%              | 221,364     | 24.2%              | 1.551               | 0.036                   |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2                   | 0.0                | 0.2         | 0.1                | -0.006              | -0.122                  |

**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                      | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number                | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                       |                    |             |                    |                     |                         |
| 0.25+                                                | 54,437                | 5.2%               | 69,192      | 7.6%               | -2.358              | -0.097                  |
| <0.25                                                | 993,939               | 94.8%              | 847,229     | 92.4%              | 2.358               | 0.097                   |
|                                                      | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.9                   | 2.5                | 1.7         | 2.5                | 0.181               | 0.074                   |
| Combined Comorbidity Score Categories *              |                       |                    |             |                    |                     |                         |
| <1                                                   | 353,394               | 33.7%              | 342,985     | 37.4%              | -3.718              | -0.078                  |
| 1                                                    | 227,965               | 21.7%              | 194,316     | 21.2%              | 0.541               | 0.013                   |
| 2                                                    | 149,547               | 14.3%              | 126,085     | 13.8%              | 0.506               | 0.015                   |
| 3+                                                   | 317,470               | 30.3%              | 253,035     | 27.6%              | 2.671               | 0.059                   |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                       |                    |             |                    |                     |                         |
| Retinopathy **                                       | 169,835               | 16.2%              | 133,937     | 14.6%              | 1.585               | 0.044                   |
| Nephropathy **                                       | 173,775               | 16.6%              | 136,486     | 14.9%              | 1.682               | 0.046                   |
| Neuropathy **                                        | 320,592               | 30.6%              | 259,811     | 28.4%              | 2.229               | 0.049                   |
| Any IPP or ED Hypoglycemia                           | 1,416                 | 0.1%               | 1,505       | 0.2%               | -0.029              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                     | 334,322               | 31.9%              | 283,584     | 30.9%              | 0.945               | 0.020                   |
| Frailty Indicators **                                | 209,331               | 20.0%              | 185,401     | 20.2%              | -0.264              | -0.007                  |
| Pneumococcal Vaccine **                              | 468,002               | 44.6%              | 384,670     | 42.0%              | 2.665               | 0.054                   |
| GLP-1RA or GIP/GLP-1RA **                            | 38,027                | 3.6%               | 13,475      | 1.5%               | 2.157               | 0.137                   |
| Insulin Initiation **                                | 21,909                | 2.1%               | 31,604      | 3.4%               | -1.359              | -0.083                  |
| Insulin or GLP-1RA                                   | 57,883                | 5.5%               | 43,949      | 4.8%               | 0.725               | 0.033                   |
| Influenza Vaccine **                                 | 513,713               | 49.0%              | 446,058     | 48.7%              | 0.327               | 0.007                   |
| Preventive Healthcare **                             | 980,083               | 93.5%              | 851,308     | 92.9%              | 0.591               | 0.023                   |
| Any HbA1c Test **                                    | 474,751               | 45.3%              | 414,490     | 45.2%              | 0.055               | 0.001                   |
| ACEis                                                | 371,480               | 35.4%              | 358,394     | 39.1%              | -3.674              | -0.076                  |
| ARBs                                                 | 301,224               | 28.7%              | 229,164     | 25.0%              | 3.726               | 0.084                   |
| Beta Blockers                                        | 368,802               | 35.2%              | 302,323     | 33.0%              | 2.189               | 0.046                   |
| Calcium Channel Blockers                             | 253,826               | 24.2%              | 233,487     | 25.5%              | -1.267              | -0.029                  |
| Statins                                              | 700,416               | 66.8%              | 579,910     | 63.3%              | 3.530               | 0.074                   |
| Any Diuretics                                        | 367,022               | 35.0%              | 325,253     | 35.5%              | -0.483              | -0.010                  |
| Any NSAID                                            | 249,502               | 23.8%              | 255,215     | 27.8%              | -4.050              | -0.093                  |



**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                           | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.5                   | 1.4                | 2.5         | 1.4                | -0.000              | -0.000                  |
|                                                                           | Number                | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 83,546                | 8.0%               | 82,012      | 8.9%               | -0.980              | -0.035                  |
| Any ED Visits**                                                           | 110,386               | 10.5%              | 109,518     | 12.0%              | -1.421              | -0.045                  |
| Any IP Visits**                                                           | 61,379                | 5.9%               | 65,612      | 7.2%               | -1.305              | -0.053                  |
| No AV Visits                                                              | 88,244                | 8.4%               | 74,612      | 8.1%               | 0.276               | 0.010                   |
| 1-3 AV Visits**                                                           | 433,051               | 41.3%              | 372,238     | 40.6%              | 0.688               | 0.014                   |
| >3 AV Visits**                                                            | 527,081               | 50.3%              | 469,571     | 51.2%              | -0.964              | -0.019                  |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                       |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 185,602               | 17.7%              | 148,436     | 16.2%              | 1.506               | 0.040                   |
| Nephropathy**                                                             | 196,750               | 18.8%              | 158,879     | 17.3%              | 1.430               | 0.037                   |
| Neuropathy**                                                              | 343,850               | 32.8%              | 283,464     | 30.9%              | 1.867               | 0.040                   |
| Any IPP or ED Hypoglycemia                                                | 1,226                 | 0.1%               | 1,251       | 0.1%               | -0.020              | -0.005                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 265,574               | 25.3%              | 229,388     | 25.0%              | 0.301               | 0.007                   |
| Frailty Indicators**                                                      | 218,917               | 20.9%              | 197,027     | 21.5%              | -0.618              | -0.015                  |
| Pneumococcal Vaccine**                                                    | 481,005               | 45.9%              | 400,245     | 43.7%              | 2.206               | 0.044                   |
| GLP-1RA or GIP/GLP-1RA**                                                  | 30,031                | 2.9%               | 14,764      | 1.6%               | 1.253               | 0.085                   |
| Insulin Initiation**                                                      | 153,149               | 14.6%              | 107,099     | 11.7%              | 2.922               | 0.087                   |
| Insulin or GLP-1RA Initiation                                             | 176,574               | 16.8%              | 118,806     | 13.0%              | 3.878               | 0.109                   |
| Influenza Vaccine**                                                       | 509,387               | 48.6%              | 444,700     | 48.5%              | 0.062               | 0.001                   |
| Preventive Healthcare**                                                   | 970,643               | 92.6%              | 844,937     | 92.2%              | 0.386               | 0.015                   |
| Any HbA1c Test**                                                          | 514,169               | 49.0%              | 463,037     | 50.5%              | -1.482              | -0.030                  |
| ACEi                                                                      | 332,058               | 31.7%              | 332,075     | 36.2%              | -4.563              | -0.096                  |
| ARB                                                                       | 272,328               | 26.0%              | 217,105     | 23.7%              | 2.286               | 0.053                   |
| Beta Blockers                                                             | 335,686               | 32.0%              | 286,926     | 31.3%              | 0.710               | 0.015                   |
| Calcium Channel Blockers                                                  | 228,705               | 21.8%              | 219,687     | 24.0%              | -2.157              | -0.051                  |
| Statins                                                                   | 634,314               | 60.5%              | 542,385     | 59.2%              | 1.319               | 0.027                   |
| Any Diuretics                                                             | 325,109               | 31.0%              | 303,347     | 33.1%              | -2.091              | -0.045                  |
| Any NSAID                                                                 | 222,916               | 21.3%              | 232,010     | 25.3%              | -4.054              | -0.096                  |
|                                                                           | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2                   | 1.5                | 2.3         | 1.5                | -0.085              | -0.057                  |

**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                           | Medical Product       |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | All SGLT-2 Inhibitors |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number                | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 164,174               | 15.7%                     | 154,788     | 16.9%                     | -1.231              | -0.033                  |
| Any ED Visits**                                                           | 94,809                | 9.0%                      | 97,545      | 10.6%                     | -1.601              | -0.054                  |
| Any IP Visits**                                                           | 44,671                | 4.3%                      | 51,413      | 5.6%                      | -1.349              | -0.062                  |
| No AV Visits                                                              | 200,660               | 19.1%                     | 146,217     | 16.0%                     | 3.185               | 0.084                   |
| 1-3 AV Visits**                                                           | 410,804               | 39.2%                     | 364,049     | 39.7%                     | -0.540              | -0.011                  |
| >3 AV Visits**                                                            | 436,912               | 41.7%                     | 406,155     | 44.3%                     | -2.645              | -0.053                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                       |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 199,022               | 19.0%                     | 161,089     | 17.6%                     | 1.406               | 0.036                   |
| Nephropathy**                                                             | 215,535               | 20.6%                     | 178,196     | 19.4%                     | 1.114               | 0.028                   |
| Neuropathy**                                                              | 362,700               | 34.6%                     | 304,100     | 33.2%                     | 1.413               | 0.030                   |
| Any IPP or ED Hypoglycemia                                                | 1,122                 | 0.1%                      | 1,157       | 0.1%                      | -0.019              | -0.006                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 229,143               | 21.9%                     | 207,799     | 22.7%                     | -0.818              | -0.020                  |
| Frailty Indicators**                                                      | 227,441               | 21.7%                     | 207,026     | 22.6%                     | -0.896              | -0.022                  |
| Pneumococcal Vaccine**                                                    | 492,562               | 47.0%                     | 414,561     | 45.2%                     | 1.746               | 0.035                   |
| GLP-1RA or GIP/GLP-1RA**                                                  | 45,825                | 4.4%                      | 20,964      | 2.3%                      | 2.083               | 0.116                   |
| Insulin Initiation**                                                      | 33,653                | 3.2%                      | 42,898      | 4.7%                      | -1.471              | -0.076                  |
| Insulin or GLP-1RA Initiation                                             | 76,681                | 7.3%                      | 62,016      | 6.8%                      | 0.547               | 0.021                   |
| Influenza Vaccine**                                                       | 501,241               | 47.8%                     | 441,828     | 48.2%                     | -0.401              | -0.008                  |
| Preventive Healthcare**                                                   | 951,864               | 90.8%                     | 832,837     | 90.9%                     | -0.085              | -0.003                  |
| Any HbA1c Test**                                                          | 448,805               | 42.8%                     | 422,802     | 46.1%                     | -3.327              | -0.067                  |
| ACEi                                                                      | 299,965               | 28.6%                     | 310,864     | 33.9%                     | -5.309              | -0.115                  |
| ARB                                                                       | 248,303               | 23.7%                     | 207,401     | 22.6%                     | 1.053               | 0.025                   |
| Beta Blockers                                                             | 307,110               | 29.3%                     | 274,925     | 30.0%                     | -0.706              | -0.015                  |
| Calcium Channel Blockers                                                  | 208,284               | 19.9%                     | 209,459     | 22.9%                     | -2.989              | -0.073                  |
| Statins                                                                   | 579,154               | 55.2%                     | 514,192     | 56.1%                     | -0.866              | -0.017                  |
| Any Diuretics                                                             | 293,555               | 28.0%                     | 287,107     | 31.3%                     | -3.328              | -0.073                  |
| Any NSAID                                                                 | 201,764               | 19.2%                     | 217,671     | 23.8%                     | -4.507              | -0.110                  |
|                                                                           | <b>Mean</b>           | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.0                   | 1.6                       | 2.2         | 1.5                       | -0.167              | -0.107                  |

**Table 1o. Aggregated Unweighted Characteristics of Initiators of Sitagliptin vs All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                           | Medical Product       |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | All SGLT-2 Inhibitors |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number                | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 154,350               | 14.7%   | 152,830     | 16.7%   | -1.954              | -0.054                  |
| Any ED Visits**                                                           | 85,947                | 8.2%    | 92,265      | 10.1%   | -1.870              | -0.065                  |
| Any IP Visits**                                                           | 40,766                | 3.9%    | 48,571      | 5.3%    | -1.412              | -0.067                  |
| No AV Visits                                                              | 280,442               | 26.8%   | 190,085     | 20.7%   | 6.008               | 0.142                   |
| 1-3 AV Visits**                                                           | 374,023               | 35.7%   | 344,157     | 37.6%   | -1.878              | -0.039                  |
| >3 AV Visits**                                                            | 393,911               | 37.6%   | 382,179     | 41.7%   | -4.130              | -0.085                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                       |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 209,691               | 20.0%   | 126,673     | 13.8%   | 6.179               | 0.165                   |
| Post-Index Insulin Initiation                                             | 86,392                | 8.2%    | 142,744     | 15.6%   | -7.336              | -0.228                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GLP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7)980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

\*\*\*\*\*Data are not presented in this cell due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

| Patient Characteristics <sup>1</sup>      | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|-------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                           | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                           | Number                | Percent            | Number      | Percent            |                     |                         |
| Weighted patients                         | 1,048,376             | N/A                | 1,026,851   | N/A                |                     |                         |
| Demographic Characteristics               | Mean                  | Standard Deviation | Mean        | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years) <sup>*</sup>             | 63.7                  | 10.3               | 63.2        | 10.4               | 0.455               | 0.044                   |
| Age                                       | Number                | Percent            | Number      | Percent            |                     |                         |
| 18-44 years                               | 92,837                | 8.9%               | 95,135      | 9.3%               | -0.409              | -0.015                  |
| 45-54 years                               | 161,630               | 15.4%              | 166,629     | 16.2%              | -0.810              | -0.023                  |
| 55-64 years                               | 243,341               | 23.2%              | 244,262     | 23.8%              | -0.576              | -0.014                  |
| 65-74 years                               | 362,552               | 34.6%              | 343,959     | 33.5%              | 1.086               | 0.025                   |
| ≥ 75 years                                | 188,016               | 17.9%              | 176,866     | 17.2%              | 0.710               | 0.020                   |
| Sex <sup>*</sup>                          |                       |                    |             |                    |                     |                         |
| Female                                    | 465,439               | 44.4%              | 473,221     | 46.1%              | -1.689              | -0.034                  |
| Male                                      | 582,937               | 55.6%              | 553,630     | 53.9%              | 1.689               | 0.034                   |
| Race <sup>2</sup>                         |                       |                    |             |                    |                     |                         |
| American Indian or Alaska Native          | 6,711                 | 0.6%               | 5,348       | 0.5%               | 0.119               | 0.016                   |
| Asian                                     | 43,927                | 4.2%               | 45,754      | 4.5%               | -0.266              | -0.013                  |
| Black or African American                 | 107,165               | 10.2%              | 127,126     | 12.4%              | -2.158              | -0.069                  |
| Multi-racial                              | 5,955                 | 0.6%               | 5,742       | 0.6%               | 0.009               | 0.001                   |
| Native Hawaiian or Other Pacific Islander | 4,206                 | 0.4%               | 4,156       | 0.4%               | -0.004              | -0.001                  |
| Unknown                                   | 285,049               | 27.2%              | 282,729     | 27.5%              | -0.344              | -0.009                  |
| White                                     | 595,363               | 56.8%              | 555,996     | 54.1%              | 2.643               | 0.060                   |
| Hispanic origin <sup>2</sup>              |                       |                    |             |                    |                     |                         |
| Yes                                       | 77,168                | 7.4%               | 77,094      | 7.5%               | -0.147              | -0.006                  |
| No                                        | 698,409               | 66.6%              | 682,248     | 66.4%              | 0.177               | 0.005                   |
| Unknown                                   | 272,799               | 26.0%              | 267,509     | 26.1%              | -0.030              | -0.001                  |
| Year <sup>*</sup>                         |                       |                    |             |                    |                     |                         |
| 2013                                      | 4,031                 | 0.4%               | 4,151       | 0.4%               | -0.020              | -0.003                  |
| 2014                                      | 26,101                | 2.5%               | 25,746      | 2.5%               | -0.018              | -0.001                  |
| 2015                                      | 49,514                | 4.7%               | 49,259      | 4.8%               | -0.074              | -0.004                  |
| 2016                                      | 51,205                | 4.9%               | 51,345      | 5.0%               | -0.116              | -0.005                  |
| 2017                                      | 69,983                | 6.7%               | 70,225      | 6.8%               | -0.163              | -0.007                  |
| 2018                                      | 70,320                | 6.7%               | 70,345      | 6.9%               | -0.143              | -0.006                  |
| 2019+                                     | 777,222               | 74.1%              | 755,780     | 73.6%              | 0.534               | 0.012                   |

**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                                               | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                                               | Number                | Percent            | Number      | Percent            |                     |                         |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                       |                    |             |                    |                     |                         |
| Retinopathy*                                                                                  | 146,478               | 14.0%              | 138,953     | 13.5%              | 0.440               | 0.013                   |
| Nephropathy*                                                                                  | 135,476               | 12.9%              | 121,934     | 11.9%              | 1.048               | 0.032                   |
| Neuropathy*                                                                                   | 286,332               | 27.3%              | 278,654     | 27.1%              | 0.175               | 0.004                   |
| Any IPP or ED Hypoglycemia Visit                                                              | 4,579                 | 0.4%               | 6,011       | 0.6%               | -0.149              | -0.021                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 544,363               | 51.9%              | 539,845     | 52.6%              | -0.648              | -0.013                  |
| Hypertension*                                                                                 | 865,607               | 82.6%              | 842,156     | 82.0%              | 0.553               | 0.015                   |
| Dyslipidemia*                                                                                 | 834,293               | 79.6%              | 812,659     | 79.1%              | 0.439               | 0.011                   |
| Coronary Artery Disease*                                                                      | 285,789               | 27.3%              | 253,501     | 24.7%              | 2.573               | 0.060                   |
| Cerebrovascular Disease*                                                                      | 57,382                | 5.5%               | 54,375      | 5.3%               | 0.178               | 0.008                   |
| Peripheral Vascular Disease*                                                                  | 152,589               | 14.6%              | 143,393     | 14.0%              | 0.590               | 0.017                   |
| Congestive Heart Failure*                                                                     | 153,787               | 14.7%              | 126,051     | 12.3%              | 2.394               | 0.071                   |
| Chronic Obstructive Pulmonary Disease*                                                        | 150,452               | 14.4%              | 144,641     | 14.1%              | 0.265               | 0.008                   |
| Depression*                                                                                   | 176,105               | 16.8%              | 177,099     | 17.2%              | -0.449              | -0.012                  |
| Obesity*                                                                                      | 405,135               | 38.6%              | 396,299     | 38.6%              | 0.050               | 0.001                   |
| Cancer (Excluding NMSC)*                                                                      | 185,859               | 17.7%              | 177,503     | 17.3%              | 0.442               | 0.012                   |
| Hepatitis C Infection                                                                         | 8,748                 | 0.8%               | 9,732       | 0.9%               | -0.113              | -0.012                  |
| History of Kidney Stones*                                                                     | 43,217                | 4.1%               | 42,163      | 4.1%               | 0.016               | 0.001                   |
| Sickle Cell Disease                                                                           | 313                   | 0.0%               | 307         | 0.0%               | -0.000              | -0.000                  |
| Smoking*                                                                                      | 239,175               | 22.8%              | 226,274     | 22.0%              | 0.778               | 0.019                   |
| Alcohol Use*                                                                                  | 26,104                | 2.5%               | 24,893      | 2.4%               | 0.066               | 0.004                   |
| Any History of RCC (Ever)                                                                     | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 2+ Broad RCC Dx Codes (Ever)                                                                  | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| 1 Prior Broad RCC Dx Code (Ever)                                                              | 1,134                 | 0.1%               | 1,287       | 0.1%               | -0.017              | -0.005                  |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                       |                    |             |                    |                     |                         |
| Metformin*                                                                                    | 965,190               | 92.1%              | 943,016     | 91.8%              | 0.230               | 0.008                   |
| Sulfonylureas*                                                                                | 404,247               | 38.6%              | 409,318     | 39.9%              | -1.302              | -0.027                  |
| Thiazolidinediones*                                                                           | 86,116                | 8.2%               | 85,720      | 8.3%               | -0.134              | -0.005                  |
| Alpha Glucosidase Inhibitor                                                                   | 4,257                 | 0.4%               | 4,331       | 0.4%               | -0.016              | -0.002                  |
| Meglitinides                                                                                  | 9,964                 | 1.0%               | 10,727      | 1.0%               | -0.094              | -0.009                  |
|                                                                                               | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| N of Oral Antidiabetic Drug Classes (Continuous)                                              | 1.4                   | 0.6                | 1.4         | 0.6                | -0.013              | -0.023                  |

**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                                               | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                                               | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
| N of Oral Antidiabetic Drug Classes                                                           | Number                | Percent            | Number      | Percent            |                     |                         |
| 1                                                                                             | 669,173               | 63.8%              | 642,329     | 62.6%              | 1.276               | 0.026                   |
| 2                                                                                             | 337,876               | 32.2%              | 343,773     | 33.5%              | -1.250              | -0.027                  |
| 3                                                                                             | 40,463                | 3.9%               | 39,775      | 3.9%               | -0.014              | -0.001                  |
| 4+                                                                                            | 862                   | 0.1%               | 974         | 0.1%               | -0.013              | -0.004                  |
| GLP-1RAs (Including GIP/GLP1-RAs)                                                             | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| DPP-4 Inhibitors                                                                              | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2 Inhibitors                                                                             | *****                 | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| SGLT-2/DPP-4 Inhibitors                                                                       | 0                     | 0.0%               | 0           | 0.0%               | NaN                 | NaN                     |
| Long- and Intermediate-Acting Insulin                                                         | 197,662               | 18.9%              | 181,963     | 17.7%              | 1.134               | 0.030                   |
| Short- and Rapid-Acting Insulin                                                               | 91,016                | 8.7%               | 73,898      | 7.2%               | 1.485               | 0.055                   |
| Combination Insulins                                                                          | 21,159                | 2.0%               | 18,610      | 1.8%               | 0.206               | 0.015                   |
| Any Insulin*                                                                                  | 229,392               | 21.9%              | 222,818     | 21.7%              | 0.182               | 0.004                   |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 463,547               | 44.2%              | 453,441     | 44.2%              | 0.057               | 0.001                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 338,148               | 32.3%              | 320,378     | 31.2%              | 1.054               | 0.023                   |
| Beta Blockers*                                                                                | 422,544               | 40.3%              | 391,452     | 38.1%              | 2.183               | 0.046                   |
| Calcium Channel Blockers*                                                                     | 312,640               | 29.8%              | 300,087     | 29.2%              | 0.597               | 0.013                   |
| Statins*                                                                                      | 805,712               | 76.9%              | 776,399     | 75.6%              | 1.244               | 0.029                   |
| Loop Diuretics                                                                                | 163,549               | 15.6%              | 138,001     | 13.4%              | 2.161               | 0.062                   |
| Other Diuretics                                                                               | 357,270               | 34.1%              | 345,584     | 33.7%              | 0.424               | 0.009                   |
| Any Diuretic*                                                                                 | 450,927               | 43.0%              | 430,020     | 41.9%              | 1.134               | 0.023                   |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 458,557               | 43.7%              | 457,829     | 44.6%              | -0.846              | -0.017                  |
|                                                                                               |                       |                    |             |                    |                     |                         |
| Count of CV Medication Classes During Baseline (Continuous)                                   | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 3.1                   | 1.4                | 3.0         | 1.4                | 0.054               | 0.038                   |
|                                                                                               |                       |                    |             |                    |                     |                         |
| Influenza Vaccine*                                                                            | Number                | Percent            | Number      | Percent            |                     |                         |
|                                                                                               | 505,643               | 48.2%              | 489,642     | 47.7%              | 0.547               | 0.011                   |
| Pneumococcal Vaccine (Ever)*                                                                  | 449,998               | 42.9%              | 431,689     | 42.0%              | 0.883               | 0.019                   |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                       |                    |             |                    |                     |                         |
| Mean Number of Ambulatory Encounters                                                          | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
|                                                                                               | 18.2                  | 17.1               | 18.1        | 17.9               | 0.127               | 0.007                   |

**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                    | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|--------------------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                    | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                    | Number                | Percent            | Number      | Percent            |                     |                         |
| Number of AV Visits (Categorical)*                                 |                       |                    |             |                    |                     |                         |
| 0-4                                                                | 125,614               | 12.0%              | 124,637     | 12.1%              | -0.156              | -0.005                  |
| 5-10                                                               | 289,652               | 27.6%              | 288,272     | 28.1%              | -0.445              | -0.010                  |
| 11-15                                                              | 182,480               | 17.4%              | 178,947     | 17.4%              | -0.021              | -0.001                  |
| 16+                                                                | 450,630               | 43.0%              | 434,995     | 42.4%              | 0.622               | 0.013                   |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Emergency Room Encounters                           | 0.6                   | 1.7                | 0.6         | 1.8                | -0.011              | -0.006                  |
| Number of ED Visits (Categorical)*                                 |                       |                    |             |                    |                     |                         |
| 0                                                                  | 730,828               | 69.7%              | 719,025     | 70.0%              | -0.312              | -0.007                  |
| 1                                                                  | 182,480               | 17.4%              | 176,548     | 17.2%              | 0.213               | 0.006                   |
| 2+                                                                 | 135,068               | 12.9%              | 131,278     | 12.8%              | 0.099               | 0.003                   |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Mean Number of Inpatient Hospital Encounters                       | 0.2                   | 0.6                | 0.2         | 0.7                | 0.012               | 0.018                   |
| Number of IP Visits (Categorical)*                                 |                       |                    |             |                    |                     |                         |
| 0                                                                  | 889,707               | 84.9%              | 882,895     | 86.0%              | -1.116              | -0.032                  |
| 1                                                                  | 116,680               | 11.1%              | 106,537     | 10.4%              | 0.754               | 0.024                   |
| 2+                                                                 | 41,989                | 4.0%               | 37,418      | 3.6%               | 0.361               | 0.019                   |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>       |                       |                    |             |                    |                     |                         |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) <sup>3</sup> | 1.6                   | 1.8                | 1.5         | 1.7                | 0.086               | 0.049                   |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories   |                       |                    |             |                    |                     |                         |
| 0                                                                  | 396,015               | 37.8%              | 408,963     | 39.8%              | -2.053              | -0.044                  |
| 1                                                                  | 201,590               | 19.2%              | 202,213     | 19.7%              | -0.464              | -0.012                  |
| 2                                                                  | 181,275               | 17.3%              | 169,549     | 16.5%              | 0.780               | 0.021                   |
| 3+                                                                 | 269,496               | 25.7%              | 246,126     | 24.0%              | 1.737               | 0.041                   |
|                                                                    | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Claims-Based Frailty Index <sup>4</sup>                            | 0.2                   | 0.0                | 0.2         | 0.0                | -0.000              | -0.006                  |

**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                      | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                      | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                      | Number                | Percent            | Number      | Percent            |                     |                         |
| Claims-Based Frailty Index Categories *              |                       |                    |             |                    |                     |                         |
| 0.25+                                                | 54,437                | 5.2%               | 51,498      | 5.0%               | 0.177               | 0.008                   |
| <0.25                                                | 993,939               | 94.8%              | 975,353     | 95.0%              | -0.177              | -0.008                  |
|                                                      | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| Combined Comorbidity Score <sup>5</sup>              | 1.9                   | 2.5                | 1.8         | 2.4                | 0.097               | 0.040                   |
| Combined Comorbidity Score Categories *              |                       |                    |             |                    |                     |                         |
| <1                                                   | 353,394               | 33.7%              | 359,229     | 35.0%              | -1.275              | -0.027                  |
| 1                                                    | 227,965               | 21.7%              | 229,738     | 22.4%              | -0.629              | -0.015                  |
| 2                                                    | 149,547               | 14.3%              | 147,512     | 14.4%              | -0.101              | -0.003                  |
| 3+                                                   | 317,470               | 30.3%              | 290,372     | 28.3%              | 2.004               | 0.045                   |
| <b>Post-Index Covariates Assessed Through Day 89</b> |                       |                    |             |                    |                     |                         |
| Retinopathy **                                       | 169,835               | 16.2%              | 162,225     | 15.8%              | 0.402               | 0.011                   |
| Nephropathy **                                       | 173,775               | 16.6%              | 155,926     | 15.2%              | 1.391               | 0.038                   |
| Neuropathy **                                        | 320,592               | 30.6%              | 313,677     | 30.5%              | 0.032               | 0.001                   |
| Any IPP or ED Hypoglycemia                           | 1,416                 | 0.1%               | 1,856       | 0.2%               | -0.046              | -0.011                  |
| Any IPP, ED or Lab Hyperglycemia                     | 334,322               | 31.9%              | 335,565     | 32.7%              | -0.790              | -0.017                  |
| Frailty Indicators **                                | 209,331               | 20.0%              | 189,180     | 18.4%              | 1.544               | 0.040                   |
| Pneumococcal Vaccine **                              | 468,002               | 44.6%              | 449,576     | 43.8%              | 0.859               | 0.018                   |
| GLP-1RA or GIP/GLP-1RA **                            | 38,027                | 3.6%               | 22,033      | 2.1%               | 1.482               | 0.089                   |
| Insulin Initiation **                                | 21,909                | 2.1%               | 28,059      | 2.7%               | -0.643              | -0.042                  |
| Insulin or GLP-1RA                                   | 57,883                | 5.5%               | 48,417      | 4.7%               | 0.806               | 0.037                   |
| Influenza Vaccine **                                 | 513,713               | 49.0%              | 496,407     | 48.3%              | 0.658               | 0.013                   |
| Preventive Healthcare **                             | 980,083               | 93.5%              | 956,412     | 93.1%              | 0.346               | 0.014                   |
| Any HbA1c Test **                                    | 474,751               | 45.3%              | 458,215     | 44.6%              | 0.661               | 0.013                   |
| ACEis                                                | 371,480               | 35.4%              | 373,738     | 36.4%              | -0.963              | -0.020                  |
| ARBs                                                 | 301,224               | 28.7%              | 280,026     | 27.3%              | 1.462               | 0.033                   |
| Beta Blockers                                        | 368,802               | 35.2%              | 341,766     | 33.3%              | 1.896               | 0.041                   |
| Calcium Channel Blockers                             | 253,826               | 24.2%              | 254,962     | 24.8%              | -0.618              | -0.014                  |
| Statins                                              | 700,416               | 66.8%              | 677,459     | 66.0%              | 0.835               | 0.018                   |
| Any Diuretics                                        | 367,022               | 35.0%              | 357,056     | 34.8%              | 0.237               | 0.005                   |
| Any NSAID                                            | 249,502               | 23.8%              | 260,249     | 25.3%              | -1.545              | -0.036                  |



**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                           | Medical Product       |                    |             |                    | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------------|--------------------|-------------|--------------------|---------------------|-------------------------|
|                                                                           | All SGLT-2 Inhibitors |                    | Sitagliptin |                    | Absolute Difference | Standardized Difference |
|                                                                           | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.5                   | 1.4                | 2.5         | 1.4                | 0.013               | 0.009                   |
|                                                                           | Number                | Percent            | Number      | Percent            |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 83,546                | 8.0%               | 87,636      | 8.5%               | -0.565              | -0.021                  |
| Any ED Visits**                                                           | 110,386               | 10.5%              | 115,038     | 11.2%              | -0.674              | -0.022                  |
| Any IP Visits**                                                           | 61,379                | 5.9%               | 63,976      | 6.2%               | -0.376              | -0.016                  |
| No AV Visits                                                              | 88,244                | 8.4%               | 89,227      | 8.7%               | -0.272              | -0.010                  |
| 1-3 AV Visits**                                                           | 433,051               | 41.3%              | 427,619     | 41.6%              | -0.337              | -0.007                  |
| >3 AV Visits**                                                            | 527,081               | 50.3%              | 510,006     | 49.7%              | 0.609               | 0.012                   |
| <b>Post-Index Covariates Assessed Through Day 179</b>                     |                       |                    |             |                    |                     |                         |
| Retinopathy**                                                             | 185,602               | 17.7%              | 178,645     | 17.4%              | 0.306               | 0.008                   |
| Nephropathy**                                                             | 196,750               | 18.8%              | 179,586     | 17.5%              | 1.278               | 0.034                   |
| Neuropathy**                                                              | 343,850               | 32.8%              | 337,473     | 32.9%              | -0.067              | -0.001                  |
| Any IPP or ED Hypoglycemia                                                | 1,226                 | 0.1%               | 1,484       | 0.1%               | -0.028              | -0.008                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 265,574               | 25.3%              | 269,526     | 26.2%              | -0.916              | -0.021                  |
| Frailty Indicators**                                                      | 218,917               | 20.9%              | 201,539     | 19.6%              | 1.255               | 0.032                   |
| Pneumococcal Vaccine**                                                    | 481,005               | 45.9%              | 462,678     | 45.1%              | 0.823               | 0.018                   |
| GLP-1RA or GIP/GLP-1RA**                                                  | 30,031                | 2.9%               | 23,443      | 2.3%               | 0.582               | 0.037                   |
| Insulin Initiation**                                                      | 153,149               | 14.6%              | 143,409     | 14.0%              | 0.642               | 0.018                   |
| Insulin or GLP-1RA Initiation                                             | 176,574               | 16.8%              | 161,284     | 15.7%              | 1.136               | 0.031                   |
| Influenza Vaccine**                                                       | 509,387               | 48.6%              | 493,008     | 48.0%              | 0.577               | 0.012                   |
| Preventive Healthcare**                                                   | 970,643               | 92.6%              | 947,834     | 92.3%              | 0.280               | 0.011                   |
| Any HbA1c Test**                                                          | 514,169               | 49.0%              | 508,498     | 49.5%              | -0.476              | -0.010                  |
| ACEi                                                                      | 332,058               | 31.7%              | 341,649     | 33.3%              | -1.598              | -0.034                  |
| ARB                                                                       | 272,328               | 26.0%              | 262,172     | 25.5%              | 0.445               | 0.010                   |
| Beta Blockers                                                             | 335,686               | 32.0%              | 320,166     | 31.2%              | 0.840               | 0.018                   |
| Calcium Channel Blockers                                                  | 228,705               | 21.8%              | 237,182     | 23.1%              | -1.283              | -0.031                  |
| Statins                                                                   | 634,314               | 60.5%              | 625,901     | 61.0%              | -0.449              | -0.009                  |
| Any Diuretics                                                             | 325,109               | 31.0%              | 328,975     | 32.0%              | -1.027              | -0.022                  |
| Any NSAID                                                                 | 222,916               | 21.3%              | 233,540     | 22.7%              | -1.480              | -0.036                  |
|                                                                           | Mean                  | Standard Deviation | Mean        | Standard Deviation |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.2                   | 1.5                | 2.3         | 1.5                | -0.046              | -0.030                  |

**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                           | Medical Product       |                           |             |                           | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------------|---------------------------|-------------|---------------------------|---------------------|-------------------------|
|                                                                           | All SGLT-2 Inhibitors |                           | Sitagliptin |                           | Absolute Difference | Standardized Difference |
|                                                                           | Number                | Percent                   | Number      | Percent                   |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 164,174               | 15.7%                     | 169,043     | 16.5%                     | -0.802              | -0.022                  |
| Any ED Visits**                                                           | 94,809                | 9.0%                      | 100,835     | 9.8%                      | -0.776              | -0.027                  |
| Any IP Visits**                                                           | 44,671                | 4.3%                      | 49,049      | 4.8%                      | -0.516              | -0.025                  |
| No AV Visits                                                              | 200,660               | 19.1%                     | 182,459     | 17.8%                     | 1.371               | 0.036                   |
| 1-3 AV Visits**                                                           | 410,804               | 39.2%                     | 408,487     | 39.8%                     | -0.596              | -0.012                  |
| >3 AV Visits**                                                            | 436,912               | 41.7%                     | 435,905     | 42.5%                     | -0.776              | -0.016                  |
| <b>Post-Index Covariates Assessed Through Day 269</b>                     |                       |                           |             |                           |                     |                         |
| Retinopathy**                                                             | 199,022               | 19.0%                     | 192,454     | 18.7%                     | 0.242               | 0.006                   |
| Nephropathy**                                                             | 215,535               | 20.6%                     | 199,574     | 19.4%                     | 1.123               | 0.028                   |
| Neuropathy**                                                              | 362,700               | 34.6%                     | 357,671     | 34.8%                     | -0.235              | -0.005                  |
| Any IPP or ED Hypoglycemia                                                | 1,122                 | 0.1%                      | 1,330       | 0.1%                      | -0.023              | -0.007                  |
| Any IPP, ED or Lab Hyperglycemia                                          | 229,143               | 21.9%                     | 240,482     | 23.4%                     | -1.562              | -0.037                  |
| Frailty Indicators**                                                      | 227,441               | 21.7%                     | 211,400     | 20.6%                     | 1.107               | 0.027                   |
| Pneumococcal Vaccine**                                                    | 492,562               | 47.0%                     | 474,722     | 46.2%                     | 0.752               | 0.016                   |
| GLP-1RA or GIP/GLP-1RA**                                                  | 45,825                | 4.4%                      | 34,261      | 3.3%                      | 1.034               | 0.054                   |
| Insulin Initiation**                                                      | 33,653                | 3.2%                      | 41,822      | 4.1%                      | -0.863              | -0.046                  |
| Insulin or GLP-1RA Initiation                                             | 76,681                | 7.3%                      | 73,340      | 7.1%                      | 0.172               | 0.007                   |
| Influenza Vaccine**                                                       | 501,241               | 47.8%                     | 485,414     | 47.3%                     | 0.539               | 0.011                   |
| Preventive Healthcare**                                                   | 951,864               | 90.8%                     | 932,051     | 90.8%                     | 0.026               | 0.001                   |
| Any HbA1c Test**                                                          | 448,805               | 42.8%                     | 454,913     | 44.3%                     | -1.492              | -0.030                  |
| ACEi                                                                      | 299,965               | 28.6%                     | 315,193     | 30.7%                     | -2.083              | -0.046                  |
| ARB                                                                       | 248,303               | 23.7%                     | 246,459     | 24.0%                     | -0.317              | -0.007                  |
| Beta Blockers                                                             | 307,110               | 29.3%                     | 302,555     | 29.5%                     | -0.170              | -0.004                  |
| Calcium Channel Blockers                                                  | 208,284               | 19.9%                     | 223,016     | 21.7%                     | -1.851              | -0.046                  |
| Statins                                                                   | 579,154               | 55.2%                     | 584,951     | 57.0%                     | -1.723              | -0.035                  |
| Any Diuretics                                                             | 293,555               | 28.0%                     | 307,086     | 29.9%                     | -1.905              | -0.042                  |
| Any NSAID                                                                 | 201,764               | 19.2%                     | 216,328     | 21.1%                     | -1.822              | -0.046                  |
|                                                                           | <b>Mean</b>           | <b>Standard Deviation</b> | <b>Mean</b> | <b>Standard Deviation</b> |                     |                         |
| CV Medication Classes (Continuous)                                        | 2.0                   | 1.6                       | 2.1         | 1.6                       | -0.099              | -0.063                  |

**Table 1p. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025 (Estimand: Average Treatment Effect in the Treated (ATT), Truncation: 1%)**

|                                                                           | Medical Product       |         |             |         | Covariate Balance   |                         |
|---------------------------------------------------------------------------|-----------------------|---------|-------------|---------|---------------------|-------------------------|
|                                                                           | All SGLT-2 Inhibitors |         | Sitagliptin |         | Absolute Difference | Standardized Difference |
|                                                                           | Number                | Percent | Number      | Percent |                     |                         |
| Increase in Count of CV Medication Classes from Prior Interval (Binary)** | 154,350               | 14.7%   | 164,731     | 16.0%   | -1.320              | -0.037                  |
| Any ED Visits**                                                           | 85,947                | 8.2%    | 92,853      | 9.0%    | -0.844              | -0.030                  |
| Any IP Visits**                                                           | 40,766                | 3.9%    | 45,811      | 4.5%    | -0.573              | -0.029                  |
| No AV Visits                                                              | 280,442               | 26.8%   | 242,426     | 23.6%   | 3.141               | 0.073                   |
| 1-3 AV Visits**                                                           | 374,023               | 35.7%   | 380,327     | 37.0%   | -1.362              | -0.028                  |
| >3 AV Visits**                                                            | 393,911               | 37.6%   | 404,098     | 39.4%   | -1.780              | -0.037                  |
| <b>Post-Index Covariates Assessed During All Available Follow-Up Time</b> |                       |         |             |         |                     |                         |
| Post-Index GLP-1RA Initiation                                             | 209,691               | 20.0%   | 170,255     | 16.6%   | 3.421               | 0.089                   |
| Post-Index Insulin Initiation                                             | 86,392                | 8.2%    | 109,839     | 10.7%   | -2.456              | -0.084                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; DPP-4 = dipeptidyl peptidase-4; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2 = sodium-glucose cotransporter-2.

**Notes:** Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

\*\*Time-varying covariate included in the censoring propensity score logistic regression model.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Race and ethnicity data may not be completely populated at all Data Partners; therefore, data about race and ethnicity may be incomplete.

<sup>3</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>4</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>5</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

\*\*\*\*\*Data are not presented in this cell due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

**Table 1q. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |                    |                  |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|--------------------|--------------------|------------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin ≥180 |                    | Sitagliptin ≥180 |                    | Absolute Difference | Standardized Difference |
| Patient Characteristics <sup>1</sup>                                                          | Number             | Percent            | Number           | Percent            |                     |                         |
| Unique patients                                                                               | 70,294             | 100.0%             | 432,684          | 100.0%             |                     |                         |
| Demographic Characteristics                                                                   | Mean               | Standard Deviation | Mean             | Standard Deviation |                     |                         |
| Mean Age (Years)*                                                                             | 60.9               | 10.0               | 65.7             | 10.9               | -4.822              | -0.460                  |
| Sex                                                                                           | Number             | Percent            | Number           | Percent            |                     |                         |
| Female                                                                                        | 31,512             | 44.8%              | 227,103          | 52.5%              | -0.077              | -0.154                  |
| Male                                                                                          | 38,782             | 55.2%              | 205,581          | 47.5%              | 0.077               | 0.154                   |
| Year                                                                                          |                    |                    |                  |                    |                     |                         |
| 2013                                                                                          | 1,914              | 2.7%               | 35,314           | 8.2%               | -0.054              | -0.241                  |
| 2014                                                                                          | 10,155             | 14.4%              | 47,521           | 11.0%              | 0.035               | 0.104                   |
| 2015                                                                                          | 17,717             | 25.2%              | 48,428           | 11.2%              | 0.140               | 0.369                   |
| 2016                                                                                          | 14,053             | 20.0%              | 48,592           | 11.2%              | 0.088               | 0.243                   |
| 2017                                                                                          | 11,088             | 15.8%              | 60,597           | 14.0%              | 0.018               | 0.050                   |
| 2018                                                                                          | 5,352              | 7.6%               | 53,661           | 12.4%              | -0.048              | -0.160                  |
| 2019+                                                                                         | 10,015             | 14.2%              | 138,571          | 32.0%              | -0.178              | -0.431                  |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                    |                    |                  |                    |                     |                         |
| Retinopathy*                                                                                  | 7,621              | 10.8%              | 53,108           | 12.3%              | -0.014              | -0.045                  |
| Nephropathy*                                                                                  | 4,604              | 6.5%               | 39,544           | 9.1%               | -0.026              | -0.096                  |
| Neuropathy*                                                                                   | 15,498             | 22.0%              | 102,448          | 23.7%              | -0.016              | -0.039                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 36,462             | 51.9%              | 202,733          | 46.9%              | 0.050               | 0.100                   |
| Hypertension*                                                                                 | 57,237             | 81.4%              | 360,001          | 83.2%              | -0.018              | -0.047                  |
| Dyslipidemia*                                                                                 | 56,099             | 79.8%              | 342,598          | 79.2%              | 0.006               | 0.016                   |
| Coronary Artery Disease*                                                                      | 13,868             | 19.7%              | 95,763           | 22.1%              | -0.024              | -0.059                  |
| Cerebrovascular Disease*                                                                      | 2,708              | 3.9%               | 26,208           | 6.1%               | -0.022              | -0.102                  |
| Peripheral Vascular Disease*                                                                  | 6,664              | 9.5%               | 59,640           | 13.8%              | -0.043              | -0.135                  |
| Congestive Heart Failure*                                                                     | 4,591              | 6.5%               | 38,356           | 8.9%               | -0.023              | -0.088                  |
| Chronic Obstructive Pulmonary Disease*                                                        | 8,977              | 12.8%              | 62,949           | 14.5%              | -0.018              | -0.052                  |
| Depression*                                                                                   | 12,229             | 17.4%              | 80,414           | 18.6%              | -0.012              | -0.031                  |
| Obesity*                                                                                      | 24,858             | 35.4%              | 127,590          | 29.5%              | 0.059               | 0.126                   |
| Cancer (Excluding NMSC)*                                                                      | 10,253             | 14.6%              | 77,239           | 17.9%              | -0.033              | -0.089                  |
| History of Kidney Stones*                                                                     | 2,393              | 3.4%               | 16,542           | 3.8%               | -0.004              | -0.022                  |
| Smoking*                                                                                      | 11,951             | 17.0%              | 79,424           | 18.4%              | -0.014              | -0.036                  |
| Alcohol Use*                                                                                  | 1,350              | 1.9%               | 8,735            | 2.0%               | -0.001              | -0.007                  |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                    |                    |                  |                    |                     |                         |
| Metformin*                                                                                    | 64,596             | 91.9%              | 391,086          | 90.4%              | 0.015               | 0.053                   |
| Sulfonylureas*                                                                                | 33,738             | 48.0%              | 202,835          | 46.9%              | 0.011               | 0.022                   |
| Thiazolidinediones*                                                                           | 7,671              | 10.9%              | 32,660           | 7.5%               | 0.034               | 0.116                   |
| Any Insulin*                                                                                  | 18,875             | 26.9%              | 62,741           | 14.5%              | 0.124               | 0.309                   |

**Table 1q. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |         |                  |         | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|-------------------------|
|                                                                                               | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference |
|                                                                                               | Number             | Percent | Number           | Percent |                     |                         |
| Angiotensin Converting Enzyme Inhibitors* (ACEIs)                                             | 34,657             | 49.3%   | 204,879          | 47.4%   | 0.020               | 0.039                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 19,633             | 27.9%   | 123,917          | 28.6%   | -0.007              | -0.016                  |
| Beta Blockers*                                                                                | 24,299             | 34.6%   | 161,025          | 37.2%   | -0.026              | -0.055                  |
| Calcium Channel Blockers*                                                                     | 17,971             | 25.6%   | 127,041          | 29.4%   | -0.038              | -0.085                  |
| Statins*                                                                                      | 51,258             | 72.9%   | 320,384          | 74.0%   | -0.011              | -0.026                  |
| Any Diuretic*                                                                                 | 29,221             | 41.6%   | 182,153          | 42.1%   | -0.005              | -0.011                  |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 33,920             | 48.3%   | 201,595          | 46.6%   | 0.017               | 0.033                   |
| Influenza Vaccine*                                                                            | 33,574             | 47.8%   | 218,413          | 50.5%   | -0.027              | -0.054                  |
| Pneumococcal Vaccine (Ever)*                                                                  | 24,976             | 35.5%   | 178,736          | 41.3%   | -0.058              | -0.119                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                    |         |                  |         |                     |                         |
| Number of AV Visits (Categorical)*                                                            |                    |         |                  |         |                     |                         |
| 0-4                                                                                           | 8,065              | 11.5%   | 48,401           | 11.2%   | 0.003               | 0.009                   |
| 5-10                                                                                          | 21,163             | 30.1%   | 119,454          | 27.6%   | 0.025               | 0.055                   |
| 11-15                                                                                         | 13,017             | 18.5%   | 78,090           | 18.0%   | 0.005               | 0.012                   |
| 16+                                                                                           | 28,049             | 39.9%   | 186,739          | 43.2%   | -0.033              | -0.066                  |
| Number of ED Visits (Categorical)*                                                            |                    |         |                  |         |                     |                         |
| 0                                                                                             | 52,046             | 74.0%   | 307,905          | 71.2%   | 0.029               | 0.065                   |
| 1                                                                                             | 10,982             | 15.6%   | 74,130           | 17.1%   | -0.015              | -0.041                  |
| 2+                                                                                            | 7,266              | 10.3%   | 50,649           | 11.7%   | -0.014              | -0.044                  |
| Number of IP Visits (Categorical)*                                                            |                    |         |                  |         |                     |                         |
| 0                                                                                             | 63,166             | 89.9%   | 371,401          | 85.8%   | 0.040               | 0.123                   |
| 1                                                                                             | 5,703              | 8.1%    | 45,598           | 10.5%   | -0.024              | -0.083                  |
| 2+                                                                                            | 1,425              | 2.0%    | 15,685           | 3.6%    | -0.016              | -0.097                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>                                  |                    |         |                  |         |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories <sup>2*</sup>                |                    |         |                  |         |                     |                         |
| 0                                                                                             | 32,147             | 45.7%   | 176,723          | 40.8%   | 0.049               | 0.099                   |
| 1                                                                                             | 15,496             | 22.0%   | 90,200           | 20.8%   | 0.012               | 0.029                   |
| 2                                                                                             | 10,684             | 15.2%   | 70,657           | 16.3%   | -0.011              | -0.031                  |
| 3+                                                                                            | 11,967             | 17.0%   | 95,104           | 22.0%   | -0.050              | -0.125                  |
| Claims-Based Frailty Index Categories <sup>3*</sup>                                           |                    |         |                  |         |                     |                         |
| 0.25+                                                                                         | 2,348              | 3.3%    | 28,333           | 6.5%    | -0.032              | -0.148                  |
| <0.25                                                                                         | 67,946             | 96.7%   | 404,351          | 93.5%   | 0.032               | 0.148                   |
| Combined Comorbidity Score Categories <sup>4*</sup>                                           |                    |         |                  |         |                     |                         |
| <1                                                                                            | 33,336             | 47.4%   | 170,902          | 39.5%   | 0.079               | 0.160                   |
| 1                                                                                             | 15,677             | 22.3%   | 93,602           | 21.6%   | 0.007               | 0.016                   |
| 2                                                                                             | 9,013              | 12.8%   | 60,211           | 13.9%   | -0.011              | -0.032                  |
| 3+                                                                                            | 12,268             | 17.5%   | 107,969          | 25.0%   | -0.075              | -0.184                  |

**Table 1q. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                          | Treatment Strategy |         |                  |         | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|-------------------------|
|                                                                                          | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference |
|                                                                                          | Number             | Percent | Number           | Percent |                     |                         |
| Health Characteristics (Assessed in First 360 Days Post-Index)                           |                    |         |                  |         |                     |                         |
| Retinopathy                                                                              | 8,734              | 12.4%   | 60,269           | 13.9%   | -0.015              | -0.044                  |
| Nephropathy                                                                              | 6,028              | 8.6%    | 47,529           | 11.0%   | -0.024              | -0.081                  |
| Neuropathy                                                                               | 18,624             | 26.5%   | 116,719          | 27.0%   | -0.005              | -0.011                  |
| IPP or ED Hypoglycemia Encounters                                                        |                    |         |                  |         |                     |                         |
| 0                                                                                        | 70,084             | 99.7%   | 431,060          | 99.6%   | 0.001               | 0.013                   |
| 1                                                                                        | 180                | 0.3%    | 1,412            | 0.3%    | -0.001              | -0.013                  |
| 2+                                                                                       | 30                 | 0.0%    | 212              | 0.0%    | 0.000               | -0.003                  |
| IPP or ED Hyperglycemia Encounters                                                       |                    |         |                  |         |                     |                         |
| 0                                                                                        | 68,841             | 97.9%   | 421,804          | 97.5%   | 0.004               | 0.030                   |
| 1                                                                                        | 1,192              | 1.7%    | 8,849            | 2.0%    | -0.003              | -0.026                  |
| 2+                                                                                       | 261                | 0.4%    | 2,031            | 0.5%    | -0.001              | -0.015                  |
| Hypertension                                                                             | 56,369             | 80.2%   | 357,577          | 82.6%   | -0.025              | -0.063                  |
| Dyslipidemia                                                                             | 55,391             | 78.8%   | 336,564          | 77.8%   | 0.010               | 0.025                   |
| Coronary Artery Disease                                                                  | 14,154             | 20.1%   | 98,503           | 22.8%   | -0.026              | -0.064                  |
| Cerebrovascular Disease                                                                  | 2,788              | 4.0%    | 26,626           | 6.2%    | -0.022              | -0.100                  |
| Peripheral Vascular Disease                                                              | 7,731              | 11.0%   | 66,259           | 15.3%   | -0.043              | -0.128                  |
| Congestive Heart Failure                                                                 | 4,729              | 6.7%    | 41,944           | 9.7%    | -0.030              | -0.108                  |
| Obesity                                                                                  | 24,431             | 34.8%   | 130,122          | 30.1%   | 0.047               | 0.100                   |
| Any HbA1c Test                                                                           | 64,616             | 91.9%   | 391,316          | 90.4%   | 0.015               | 0.052                   |
| GLP-1RA or GIP/GLP-1RA Initiation                                                        | 5,022              | 7.1%    | 19,924           | 4.6%    | 0.025               | 0.108                   |
| Insulin Initiation                                                                       | 2,752              | 3.9%    | 30,977           | 7.2%    | -0.032              | -0.142                  |
| Frailty Indicators                                                                       | 9,769              | 13.9%   | 80,166           | 18.5%   | -0.046              | -0.126                  |
| Preventive Healthcare                                                                    | 63,392             | 90.2%   | 388,131          | 89.7%   | 0.005               | 0.016                   |
| Health Service Utilization Intensity Metrics (Measured in the First 360 Days Post-Index) |                    |         |                  |         |                     |                         |
| Number of AV Visits (Categorical)                                                        |                    |         |                  |         |                     |                         |
| 0-4                                                                                      | 8,988              | 12.8%   | 51,097           | 11.8%   | 0.010               | 0.030                   |
| 5-10                                                                                     | 20,515             | 29.2%   | 113,946          | 26.3%   | 0.028               | 0.064                   |
| 11+                                                                                      | 40,791             | 58.0%   | 267,641          | 61.9%   | -0.038              | -0.078                  |
| Number of ED Visits (Categorical)                                                        |                    |         |                  |         |                     |                         |
| 0                                                                                        | 53,076             | 75.5%   | 312,775          | 72.3%   | 0.032               | 0.073                   |
| 1                                                                                        | 10,494             | 14.9%   | 71,617           | 16.6%   | -0.016              | -0.045                  |
| 2+                                                                                       | 6,724              | 9.6%    | 48,292           | 11.2%   | -0.016              | -0.052                  |

**Table 1q. Aggregated Unweighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                   | Treatment Strategy |         |                  |         | Covariate Balance   |                         |
|-----------------------------------|--------------------|---------|------------------|---------|---------------------|-------------------------|
|                                   | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference |
|                                   | Number             | Percent | Number           | Percent |                     |                         |
| Number of IP Visits (Categorical) |                    |         |                  |         |                     |                         |
| 0                                 | 63,099             | 89.8%   | 374,817          | 86.6%   | 0.031               | 0.097                   |
| 1                                 | 5,529              | 7.9%    | 42,265           | 9.8%    | -0.019              | -0.067                  |
| 2+                                | 1,666              | 2.4%    | 15,602           | 3.6%    | -0.012              | -0.073                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma.

**Notes:** Individuals lost to follow-up or experiencing events prior to day 360 are not captured. Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>3</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>4</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1r. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |                                 |                  |                                 | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------------------------------|------------------|---------------------------------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |                                 | Sitagliptin ≥180 |                                 | Absolute Difference | Standardized Difference <sup>3</sup> |
| Patient Characteristics <sup>1</sup>                                                          | Number             | Percent                         | Number           | Percent                         |                     |                                      |
| Unique patients                                                                               | 70,294             | 100.0%                          | 73,674           | 100.0%                          |                     |                                      |
| Demographic Characteristics                                                                   | Mean               | Standard Deviation <sup>2</sup> | Mean             | Standard Deviation <sup>2</sup> | Absolute Difference | Standardized Difference <sup>3</sup> |
| Mean Age (Years)*                                                                             | 60.9               | 10.0                            | 61.7             | 4.8                             |                     |                                      |
| Sex                                                                                           | Number             | Percent                         | Number           | Percent                         |                     |                                      |
| Female                                                                                        | 31,512             | 44.8%                           | 34,797           | 47.2%                           | -0.024              | -0.048                               |
| Male                                                                                          | 38,782             | 55.2%                           | 38,877           | 52.8%                           | 0.024               | 0.048                                |
| Year                                                                                          |                    |                                 |                  |                                 |                     |                                      |
| 2013                                                                                          | 1,914              | 2.7%                            | 1,742            | 2.4%                            | 0.004               | 0.023                                |
| 2014                                                                                          | 10,155             | 14.4%                           | 8,813            | 12.0%                           | 0.025               | 0.073                                |
| 2015                                                                                          | 17,717             | 25.2%                           | 17,373           | 23.6%                           | 0.016               | 0.038                                |
| 2016                                                                                          | 14,053             | 20.0%                           | 14,858           | 20.2%                           | -0.002              | -0.004                               |
| 2017                                                                                          | 11,088             | 15.8%                           | 13,146           | 17.8%                           | -0.021              | -0.055                               |
| 2018                                                                                          | 5,352              | 7.6%                            | 7,097            | 9.6%                            | -0.020              | -0.072                               |
| 2019+                                                                                         | 10,015             | 14.2%                           | 10,646           | 14.4%                           | -0.002              | -0.006                               |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                    |                                 |                  |                                 |                     |                                      |
| Retinopathy*                                                                                  | 7,621              | 10.8%                           | 8,018            | 10.9%                           | 0.000               | -0.001                               |
| Nephropathy*                                                                                  | 4,604              | 6.5%                            | 4,956            | 6.7%                            | -0.002              | -0.007                               |
| Neuropathy*                                                                                   | 15,498             | 22.0%                           | 17,024           | 23.1%                           | -0.011              | -0.025                               |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 36,462             | 51.9%                           | 37,239           | 50.5%                           | 0.013               | 0.027                                |
| Hypertension*                                                                                 | 57,237             | 81.4%                           | 60,234           | 81.8%                           | -0.003              | -0.009                               |
| Dyslipidemia*                                                                                 | 56,099             | 79.8%                           | 58,212           | 79.0%                           | 0.008               | 0.020                                |
| Coronary Artery Disease*                                                                      | 13,868             | 19.7%                           | 14,803           | 20.1%                           | -0.004              | -0.009                               |
| Cerebrovascular Disease*                                                                      | 2,708              | 3.9%                            | 2,985            | 4.1%                            | -0.002              | -0.010                               |
| Peripheral Vascular Disease*                                                                  | 6,664              | 9.5%                            | 7,551            | 10.2%                           | -0.008              | -0.026                               |
| Congestive Heart Failure*                                                                     | 4,591              | 6.5%                            | 5,039            | 6.8%                            | -0.003              | -0.012                               |
| Chronic Obstructive Pulmonary Disease*                                                        | 8,977              | 12.8%                           | 9,963            | 13.5%                           | -0.008              | -0.022                               |
| Depression*                                                                                   | 12,229             | 17.4%                           | 13,179           | 17.9%                           | -0.005              | -0.013                               |
| Obesity*                                                                                      | 24,858             | 35.4%                           | 25,357           | 34.4%                           | 0.009               | 0.020                                |
| Cancer (Excluding NMSC)*                                                                      | 10,253             | 14.6%                           | 11,077           | 15.0%                           | -0.004              | -0.013                               |
| History of Kidney Stones*                                                                     | 2,393              | 3.4%                            | 2,541            | 3.4%                            | 0.000               | -0.002                               |
| Smoking*                                                                                      | 11,951             | 17.0%                           | 13,081           | 17.8%                           | -0.008              | -0.020                               |
| Alcohol Use*                                                                                  | 1,350              | 1.9%                            | 1,407            | 1.9%                            | 0.000               | 0.001                                |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                    |                                 |                  |                                 |                     |                                      |
| Metformin*                                                                                    | 64,596             | 91.9%                           | 67,782           | 92.0%                           | -0.001              | -0.004                               |
| Sulfonylureas*                                                                                | 33,738             | 48.0%                           | 35,406           | 48.1%                           | -0.001              | -0.001                               |
| Thiazolidinediones*                                                                           | 7,671              | 10.9%                           | 7,839            | 10.6%                           | 0.003               | 0.009                                |
| Any Insulin*                                                                                  | 18,875             | 26.9%                           | 18,001           | 24.4%                           | 0.024               | 0.055                                |



**Table 1r. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                               | Number             | Percent | Number           | Percent |                     |                                      |
| Angiotensin Converting Enzyme Inhibitors* (ACEIs)                                             | 34,657             | 49.3%   | 36,512           | 49.6%   | -0.003              | -0.005                               |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 19,633             | 27.9%   | 20,641           | 28.0%   | -0.001              | -0.002                               |
| Beta Blockers*                                                                                | 24,299             | 34.6%   | 26,187           | 35.5%   | -0.010              | -0.020                               |
| Calcium Channel Blockers*                                                                     | 17,971             | 25.6%   | 19,235           | 26.1%   | -0.005              | -0.012                               |
| Statins*                                                                                      | 51,258             | 72.9%   | 54,025           | 73.3%   | -0.004              | -0.009                               |
| Any Diuretic*                                                                                 | 29,221             | 41.6%   | 31,260           | 42.4%   | -0.009              | -0.017                               |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 33,920             | 48.3%   | 36,246           | 49.2%   | -0.009              | -0.019                               |
| Influenza Vaccine*                                                                            | 33,574             | 47.8%   | 35,521           | 48.2%   | -0.005              | -0.009                               |
| Pneumococcal Vaccine (Ever)*                                                                  | 24,976             | 35.5%   | 27,188           | 36.9%   | -0.014              | -0.029                               |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                    |         |                  |         |                     |                                      |
| Number of AV Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0-4                                                                                           | 8,065              | 11.5%   | 8,065            | 10.9%   | 0.005               | 0.017                                |
| 5-10                                                                                          | 21,163             | 30.1%   | 21,486           | 29.2%   | 0.009               | 0.021                                |
| 11-15                                                                                         | 13,017             | 18.5%   | 13,493           | 18.3%   | 0.002               | 0.005                                |
| 16+                                                                                           | 28,049             | 39.9%   | 30,630           | 41.6%   | -0.017              | -0.034                               |
| Number of ED Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 52,046             | 74.0%   | 53,706           | 72.9%   | 0.011               | 0.026                                |
| 1                                                                                             | 10,982             | 15.6%   | 11,919           | 16.2%   | -0.006              | -0.015                               |
| 2+                                                                                            | 7,266              | 10.3%   | 8,050            | 10.9%   | -0.006              | -0.019                               |
| Number of IP Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 63,166             | 89.9%   | 66,068           | 89.7%   | 0.002               | 0.006                                |
| 1                                                                                             | 5,703              | 8.1%    | 6,036            | 8.2%    | -0.001              | -0.003                               |
| 2+                                                                                            | 1,425              | 2.0%    | 1,571            | 2.1%    | -0.001              | -0.007                               |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>                                  |                    |         |                  |         |                     |                                      |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories <sup>4*</sup>                |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 32,147             | 45.7%   | 32,879           | 44.6%   | 0.011               | 0.022                                |
| 1                                                                                             | 15,496             | 22.0%   | 16,398           | 22.3%   | -0.002              | -0.005                               |
| 2                                                                                             | 10,684             | 15.2%   | 11,405           | 15.5%   | -0.003              | -0.008                               |
| 3+                                                                                            | 11,967             | 17.0%   | 12,992           | 17.6%   | -0.006              | -0.016                               |
| Claims-Based Frailty Index Categories <sup>5*</sup>                                           |                    |         |                  |         |                     |                                      |
| 0.25+                                                                                         | 2,348              | 3.3%    | 2,706            | 3.7%    | -0.003              | -0.018                               |
| <0.25                                                                                         | 67,946             | 96.7%   | 70,968           | 96.3%   | 0.003               | 0.018                                |
| Combined Comorbidity Score Categories <sup>6*</sup>                                           |                    |         |                  |         |                     |                                      |
| <1                                                                                            | 33,336             | 47.4%   | 33,334           | 45.2%   | 0.022               | 0.044                                |
| 1                                                                                             | 15,677             | 22.3%   | 16,700           | 22.7%   | -0.004              | -0.009                               |
| 2                                                                                             | 9,013              | 12.8%   | 9,987            | 13.6%   | -0.007              | -0.022                               |
| 3+                                                                                            | 12,268             | 17.5%   | 13,653           | 18.5%   | -0.011              | -0.028                               |

**Table 1r. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                          | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                                                                          | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                          | Number             | Percent | Number           | Percent |                     |                                      |
| Health Characteristics (Assessed in First 360 Days Post-Index)                           |                    |         |                  |         |                     |                                      |
| Retinopathy                                                                              | 8,734              | 12.4%   | 9,560            | 13.0%   | -0.006              | -0.017                               |
| Nephropathy                                                                              | 6,028              | 8.6%    | 7,014            | 9.5%    | -0.009              | -0.033                               |
| Neuropathy                                                                               | 18,624             | 26.5%   | 20,112           | 27.3%   | -0.008              | -0.018                               |
| IPP or ED Hypoglycemia Encounters                                                        |                    |         |                  |         |                     |                                      |
| 0                                                                                        | 70,084             | 99.7%   | 73,373           | 99.6%   | 0.001               | 0.018                                |
| 1                                                                                        | 180                | 0.3%    | 261              | 0.4%    | -0.001              | -0.018                               |
| 2+                                                                                       | 30                 | 0.0%    | 40               | 0.1%    | 0.000               | -0.005                               |
| IPP or ED Hyperglycemia Encounters                                                       |                    |         |                  |         |                     |                                      |
| 0                                                                                        | 68,841             | 97.9%   | 71,595           | 97.2%   | 0.008               | 0.049                                |
| 1                                                                                        | 1,192              | 1.7%    | 1,679            | 2.3%    | -0.006              | -0.042                               |
| 2+                                                                                       | 261                | 0.4%    | 401              | 0.5%    | -0.002              | -0.026                               |
| Hypertension                                                                             | 56,369             | 80.2%   | 59,879           | 81.3%   | -0.011              | -0.027                               |
| Dyslipidemia                                                                             | 55,391             | 78.8%   | 56,995           | 77.4%   | 0.014               | 0.035                                |
| Coronary Artery Disease                                                                  | 14,154             | 20.1%   | 15,327           | 20.8%   | -0.007              | -0.017                               |
| Cerebrovascular Disease                                                                  | 2,788              | 4.0%    | 3,398            | 4.6%    | -0.006              | -0.032                               |
| Peripheral Vascular Disease                                                              | 7,731              | 11.0%   | 9,072            | 12.3%   | -0.013              | -0.041                               |
| Congestive Heart Failure                                                                 | 4,729              | 6.7%    | 5,787            | 7.9%    | -0.011              | -0.043                               |
| Obesity                                                                                  | 24,431             | 34.8%   | 25,068           | 34.0%   | 0.007               | 0.015                                |
| Any HbA1c Test                                                                           | 64,616             | 91.9%   | 66,863           | 90.8%   | 0.012               | 0.042                                |
| GLP-1RA or GIP/GLP-1RA Initiation                                                        | 5,022              | 7.1%    | 3,639            | 4.9%    | 0.022               | 0.093                                |
| Insulin Initiation                                                                       | 2,752              | 3.9%    | 4,626            | 6.3%    | -0.024              | -0.108                               |
| Frailty Indicators                                                                       | 9,769              | 13.9%   | 11,645           | 15.8%   | -0.019              | -0.054                               |
| Preventive Healthcare                                                                    | 63,392             | 90.2%   | 66,185           | 89.8%   | 0.003               | 0.012                                |
| Health Service Utilization Intensity Metrics (Measured in the First 360 Days Post-Index) |                    |         |                  |         |                     |                                      |
| Number of AV Visits (Categorical)                                                        |                    |         |                  |         |                     |                                      |
| 0-4                                                                                      | 8,988              | 12.8%   | 8,941            | 12.1%   | 0.007               | 0.020                                |
| 5-10                                                                                     | 20,515             | 29.2%   | 20,203           | 27.4%   | 0.018               | 0.039                                |
| 11+                                                                                      | 40,791             | 58.0%   | 44,531           | 60.4%   | -0.024              | -0.049                               |
| Number of ED Visits (Categorical)                                                        |                    |         |                  |         |                     |                                      |
| 0                                                                                        | 53,076             | 75.5%   | 53,464           | 72.6%   | 0.029               | 0.067                                |
| 1                                                                                        | 10,494             | 14.9%   | 12,041           | 16.3%   | -0.014              | -0.039                               |
| 2+                                                                                       | 6,724              | 9.6%    | 8,170            | 11.1%   | -0.015              | -0.050                               |

**Table 1r. Inverse-Probability-of-Treatment Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                   | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|-----------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                   | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                   | Number             | Percent | Number           | Percent |                     |                                      |
| Number of IP Visits (Categorical) |                    |         |                  |         |                     |                                      |
| 0                                 | 63,099             | 89.8%   | 64,906           | 88.1%   | 0.017               | 0.053                                |
| 1                                 | 5,529              | 7.9%    | 6,569            | 8.9%    | -0.011              | -0.038                               |
| 2+                                | 1,666              | 2.4%    | 2,199            | 3.0%    | -0.006              | -0.038                               |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma.

**Notes:** Individuals lost to follow-up or experiencing events prior to day 360 are not captured. Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>For weighted data, aggregated standard deviations are calculated using the standard formula for unweighted data, and therefore represent an approximation.

<sup>3</sup>For weighted data, the standardized mean difference is calculated as the difference in weighted means or proportions divided by the pooled standard deviation across treatment groups. Note the pooled standard deviation is calculated using the standard formula for unweighted data, and therefore represents an approximation.

<sup>4</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>5</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>6</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1s. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |                                 |                  |                                 | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------------------------------|------------------|---------------------------------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |                                 | Sitagliptin ≥180 |                                 | Absolute Difference | Standardized Difference <sup>3</sup> |
| Patient Characteristics <sup>1</sup>                                                          | Number             | Percent                         | Number           | Percent                         |                     |                                      |
| Unique patients                                                                               | 111,765            | 100.0%                          | 628,668          | 100.0%                          |                     |                                      |
| Demographic Characteristics                                                                   | Mean               | Standard Deviation <sup>2</sup> | Mean             | Standard Deviation <sup>2</sup> | Absolute Difference | Standardized Difference <sup>3</sup> |
| Mean Age (Years)*                                                                             | 61.1               | 12.9                            | 65.5             | 13.2                            |                     |                                      |
| Sex                                                                                           | Number             | Percent                         | Number           | Percent                         |                     |                                      |
| Female                                                                                        | 53,053             | 47.5%                           | 334,852          | 53.3%                           | -0.058              | -0.116                               |
| Male                                                                                          | 58,712             | 52.5%                           | 293,815          | 46.7%                           | 0.058               | 0.116                                |
| Year                                                                                          |                    |                                 |                  |                                 |                     |                                      |
| 2013                                                                                          | 2,755              | 2.5%                            | 55,352           | 8.8%                            | -0.063              | -0.278                               |
| 2014                                                                                          | 14,611             | 13.1%                           | 72,076           | 11.5%                           | 0.016               | 0.049                                |
| 2015                                                                                          | 27,069             | 24.2%                           | 71,979           | 11.4%                           | 0.128               | 0.338                                |
| 2016                                                                                          | 22,296             | 19.9%                           | 71,441           | 11.4%                           | 0.086               | 0.238                                |
| 2017                                                                                          | 18,921             | 16.9%                           | 86,977           | 13.8%                           | 0.031               | 0.086                                |
| 2018                                                                                          | 10,186             | 9.1%                            | 77,123           | 12.3%                           | -0.032              | -0.102                               |
| 2019+                                                                                         | 15,927             | 14.3%                           | 193,719          | 30.8%                           | -0.166              | -0.404                               |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                    |                                 |                  |                                 |                     |                                      |
| Retinopathy*                                                                                  | 12,093             | 10.8%                           | 76,465           | 12.2%                           | -0.013              | -0.042                               |
| Nephropathy*                                                                                  | 7,667              | 6.9%                            | 58,037           | 9.2%                            | -0.024              | -0.087                               |
| Neuropathy*                                                                                   | 26,162             | 23.4%                           | 150,419          | 23.9%                           | -0.005              | -0.012                               |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 58,773             | 52.6%                           | 301,418          | 47.9%                           | 0.046               | 0.093                                |
| Hypertension*                                                                                 | 91,082             | 81.5%                           | 522,109          | 83.1%                           | -0.016              | -0.041                               |
| Dyslipidemia*                                                                                 | 88,242             | 79.0%                           | 494,400          | 78.6%                           | 0.003               | 0.008                                |
| Coronary Artery Disease*                                                                      | 22,653             | 20.3%                           | 141,952          | 22.6%                           | -0.023              | -0.056                               |
| Cerebrovascular Disease*                                                                      | 4,566              | 4.1%                            | 38,744           | 6.2%                            | -0.021              | -0.094                               |
| Peripheral Vascular Disease*                                                                  | 11,220             | 10.0%                           | 86,999           | 13.8%                           | -0.038              | -0.117                               |
| Congestive Heart Failure*                                                                     | 7,742              | 6.9%                            | 57,378           | 9.1%                            | -0.022              | -0.081                               |
| Chronic Obstructive Pulmonary Disease*                                                        | 15,228             | 13.6%                           | 94,484           | 15.0%                           | -0.014              | -0.040                               |
| Depression*                                                                                   | 19,937             | 17.8%                           | 117,012          | 18.6%                           | -0.008              | -0.020                               |
| Obesity*                                                                                      | 39,710             | 35.5%                           | 186,519          | 29.7%                           | 0.059               | 0.125                                |
| Cancer (Excluding NMSC)*                                                                      | 16,591             | 14.8%                           | 112,134          | 17.8%                           | -0.030              | -0.081                               |
| History of Kidney Stones*                                                                     | 3,908              | 3.5%                            | 24,225           | 3.9%                            | -0.004              | -0.019                               |
| Smoking*                                                                                      | 20,093             | 18.0%                           | 119,123          | 18.9%                           | -0.010              | -0.025                               |
| Alcohol Use*                                                                                  | 2,204              | 2.0%                            | 13,641           | 2.2%                            | -0.002              | -0.014                               |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                    |                                 |                  |                                 |                     |                                      |
| Metformin*                                                                                    | 102,068            | 91.3%                           | 564,015          | 89.7%                           | 0.016               | 0.055                                |
| Sulfonylureas*                                                                                | 53,791             | 48.1%                           | 298,501          | 47.5%                           | 0.006               | 0.013                                |
| Thiazolidinediones*                                                                           | 11,728             | 10.5%                           | 46,371           | 7.4%                            | 0.031               | 0.109                                |
| Any Insulin*                                                                                  | 30,836             | 27.6%                           | 96,809           | 15.4%                           | 0.122               | 0.300                                |

**Table 1s. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                               | Number             | Percent | Number           | Percent |                     |                                      |
| Angiotensin Converting Enzyme Inhibitors* (ACEIs)                                             | 54,904             | 49.1%   | 296,403          | 47.1%   | 0.020               | 0.040                                |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 30,742             | 27.5%   | 175,905          | 28.0%   | -0.005              | -0.011                               |
| Beta Blockers*                                                                                | 38,715             | 34.6%   | 232,137          | 36.9%   | -0.023              | -0.048                               |
| Calcium Channel Blockers*                                                                     | 28,754             | 25.7%   | 183,554          | 29.2%   | -0.035              | -0.078                               |
| Statins*                                                                                      | 79,388             | 71.0%   | 452,438          | 72.0%   | -0.009              | -0.021                               |
| Any Diuretic*                                                                                 | 47,030             | 42.1%   | 263,384          | 41.9%   | 0.002               | 0.004                                |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 55,576             | 49.7%   | 297,314          | 47.3%   | 0.024               | 0.049                                |
| Influenza Vaccine*                                                                            | 51,717             | 46.3%   | 308,598          | 49.1%   | -0.028              | -0.056                               |
| Pneumococcal Vaccine (Ever)*                                                                  | 39,791             | 35.6%   | 255,342          | 40.6%   | -0.050              | -0.103                               |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                    |         |                  |         |                     |                                      |
| Number of AV Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0-4                                                                                           | 12,847             | 11.5%   | 71,329           | 11.3%   | 0.001               | 0.005                                |
| 5-10                                                                                          | 32,672             | 29.2%   | 172,362          | 27.4%   | 0.018               | 0.040                                |
| 11-15                                                                                         | 20,398             | 18.3%   | 112,505          | 17.9%   | 0.004               | 0.009                                |
| 16+                                                                                           | 45,848             | 41.0%   | 272,472          | 43.3%   | -0.023              | -0.047                               |
| Number of ED Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 80,151             | 71.7%   | 438,152          | 69.7%   | 0.020               | 0.044                                |
| 1                                                                                             | 18,430             | 16.5%   | 110,377          | 17.6%   | -0.011              | -0.028                               |
| 2+                                                                                            | 13,184             | 11.8%   | 80,139           | 12.7%   | -0.010              | -0.029                               |
| Number of IP Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 99,466             | 89.0%   | 533,395          | 84.8%   | 0.042               | 0.123                                |
| 1                                                                                             | 9,692              | 8.7%    | 70,050           | 11.1%   | -0.025              | -0.083                               |
| 2+                                                                                            | 2,607              | 2.3%    | 25,223           | 4.0%    | -0.017              | -0.096                               |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>                                  |                    |         |                  |         |                     |                                      |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories <sup>4*</sup>                |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 49,805             | 44.6%   | 255,267          | 40.6%   | 0.040               | 0.080                                |
| 1                                                                                             | 24,686             | 22.1%   | 129,438          | 20.6%   | 0.015               | 0.037                                |
| 2                                                                                             | 17,259             | 15.4%   | 103,201          | 16.4%   | -0.010              | -0.027                               |
| 3+                                                                                            | 20,015             | 17.9%   | 140,761          | 22.4%   | -0.045              | -0.112                               |
| Claims-Based Frailty Index Categories <sup>5*</sup>                                           |                    |         |                  |         |                     |                                      |
| 0.25+                                                                                         | 4,078              | 3.6%    | 41,827           | 6.7%    | -0.030              | -0.136                               |
| <0.25                                                                                         | 107,687            | 96.4%   | 586,841          | 93.3%   | 0.030               | 0.136                                |
| Combined Comorbidity Score Categories <sup>6*</sup>                                           |                    |         |                  |         |                     |                                      |
| <1                                                                                            | 50,729             | 45.4%   | 246,254          | 39.2%   | 0.062               | 0.126                                |
| 1                                                                                             | 25,351             | 22.7%   | 135,705          | 21.6%   | 0.011               | 0.026                                |
| 2                                                                                             | 14,909             | 13.3%   | 87,361           | 13.9%   | -0.006              | -0.016                               |
| 3+                                                                                            | 20,777             | 18.6%   | 159,349          | 25.3%   | -0.068              | -0.164                               |

**Table 1s. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                          | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                                                                          | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                          | Number             | Percent | Number           | Percent |                     |                                      |
| Health Characteristics (Assessed in First 360 Days Post-Index)                           |                    |         |                  |         |                     |                                      |
| Retinopathy                                                                              | 14,059             | 12.6%   | 86,622           | 13.8%   | -0.012              | -0.035                               |
| Nephropathy                                                                              | 10,168             | 9.1%    | 70,015           | 11.1%   | -0.020              | -0.068                               |
| Neuropathy                                                                               | 31,119             | 27.8%   | 171,250          | 27.2%   | 0.006               | 0.014                                |
| IPP or ED Hypoglycemia Encounters                                                        |                    |         |                  |         |                     |                                      |
| 0                                                                                        | 111,383            | 99.7%   | 626,190          | 99.6%   | 0.001               | 0.009                                |
| 1                                                                                        | 318                | 0.3%    | 2,147            | 0.3%    | -0.001              | -0.010                               |
| 2+                                                                                       | 64                 | 0.1%    | 330              | 0.1%    | 0.000               | 0.002                                |
| IPP or ED Hyperglycemia Encounters                                                       |                    |         |                  |         |                     |                                      |
| 0                                                                                        | 109,083            | 97.6%   | 611,740          | 97.3%   | 0.003               | 0.019                                |
| 1                                                                                        | 2,171              | 1.9%    | 13,630           | 2.2%    | -0.002              | -0.016                               |
| 2+                                                                                       | 510                | 0.5%    | 3,298            | 0.5%    | -0.001              | -0.010                               |
| Hypertension                                                                             | 89,578             | 80.1%   | 517,666          | 82.3%   | -0.022              | -0.056                               |
| Dyslipidemia                                                                             | 87,164             | 78.0%   | 485,529          | 77.2%   | 0.008               | 0.018                                |
| Coronary Artery Disease                                                                  | 23,062             | 20.6%   | 144,787          | 23.0%   | -0.024              | -0.058                               |
| Cerebrovascular Disease                                                                  | 4,692              | 4.2%    | 39,306           | 6.3%    | -0.021              | -0.092                               |
| Peripheral Vascular Disease                                                              | 12,926             | 11.6%   | 96,820           | 15.4%   | -0.038              | -0.112                               |
| Congestive Heart Failure                                                                 | 8,002              | 7.2%    | 62,358           | 9.9%    | -0.028              | -0.099                               |
| Obesity                                                                                  | 39,133             | 35.0%   | 189,525          | 30.1%   | 0.049               | 0.104                                |
| Any HbA1c Test                                                                           | 102,060            | 91.3%   | 565,809          | 90.0%   | 0.013               | 0.045                                |
| GLP-1RA or GIP/GLP-1RA Initiation                                                        | 8,351              | 7.5%    | 30,301           | 4.8%    | 0.027               | 0.111                                |
| Insulin Initiation                                                                       | 4,621              | 4.1%    | 46,292           | 7.4%    | -0.032              | -0.139                               |
| Frailty Indicators                                                                       | 16,508             | 14.8%   | 117,734          | 18.7%   | -0.040              | -0.106                               |
| Preventive Healthcare                                                                    | 100,183            | 89.6%   | 560,931          | 89.2%   | 0.004               | 0.013                                |
| Health Service Utilization Intensity Metrics (Measured in the First 360 Days Post-Index) |                    |         |                  |         |                     |                                      |
| Number of AV Visits (Categorical)                                                        |                    |         |                  |         |                     |                                      |
| 0-4                                                                                      | 14,248             | 12.7%   | 76,134           | 12.1%   | 0.006               | 0.019                                |
| 5-10                                                                                     | 31,597             | 28.3%   | 164,109          | 26.1%   | 0.022               | 0.049                                |
| 11+                                                                                      | 65,920             | 59.0%   | 388,425          | 61.8%   | -0.028              | -0.057                               |
| Number of ED Visits (Categorical)                                                        |                    |         |                  |         |                     |                                      |
| 0                                                                                        | 82,427             | 73.8%   | 448,923          | 71.4%   | 0.023               | 0.053                                |
| 1                                                                                        | 17,321             | 15.5%   | 105,482          | 16.8%   | -0.013              | -0.035                               |
| 2+                                                                                       | 12,016             | 10.8%   | 74,263           | 11.8%   | -0.011              | -0.034                               |

**Table 1s. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                   | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|-----------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                   | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                   | Number             | Percent | Number           | Percent |                     |                                      |
| Number of IP Visits (Categorical) |                    |         |                  |         |                     |                                      |
| 0                                 | 99,429             | 89.0%   | 541,442          | 86.1%   | 0.028               | 0.086                                |
| 1                                 | 9,331              | 8.3%    | 63,025           | 10.0%   | -0.017              | -0.058                               |
| 2+                                | 3,004              | 2.7%    | 24,201           | 3.8%    | -0.012              | -0.065                               |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma.

**Notes:** Individuals lost to follow-up or experiencing events prior to day 360 are not captured. Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\* Covariate included in the treatment and censoring propensity score logistic regression models.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>For weighted data, aggregated standard deviations are calculated using the standard formula for unweighted data, and therefore represent an approximation.

<sup>3</sup>For weighted data, the standardized mean difference is calculated as the difference in weighted means or proportions divided by the pooled standard deviation across treatment groups. Note the pooled standard deviation is calculated using the standard formula for unweighted data, and therefore represents an approximation.

<sup>4</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>5</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>6</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1t. Inverse-Probability-of-Treatment and -Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |                                 |                  |                                 | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------------------------------|------------------|---------------------------------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |                                 | Sitagliptin ≥180 |                                 | Absolute Difference | Standardized Difference <sup>3</sup> |
| Patient Characteristics <sup>1</sup>                                                          | Number             | Percent                         | Number           | Percent                         |                     |                                      |
| Unique patients                                                                               | 111,505            | 100.0%                          | 109,435          | 100.0%                          |                     |                                      |
| Demographic Characteristics                                                                   | Mean               | Standard Deviation <sup>2</sup> | Mean             | Standard Deviation <sup>2</sup> | Absolute Difference | Standardized Difference <sup>3</sup> |
| Mean Age (Years) <sup>*</sup>                                                                 | 61.1               | 12.9                            | 61.3             | 6.3                             |                     |                                      |
| Sex                                                                                           | Number             | Percent                         | Number           | Percent                         |                     |                                      |
| Female                                                                                        | 52,836             | 47.4%                           | 52,521           | 48.0%                           | -0.006              | -0.012                               |
| Male                                                                                          | 58,668             | 52.6%                           | 56,913           | 52.0%                           | 0.006               | 0.012                                |
| Year                                                                                          |                    |                                 |                  |                                 |                     |                                      |
| 2013                                                                                          | 2,755              | 2.5%                            | 2,854            | 2.6%                            | -0.001              | -0.009                               |
| 2014                                                                                          | 14,609             | 13.1%                           | 13,837           | 12.6%                           | 0.005               | 0.014                                |
| 2015                                                                                          | 27,042             | 24.3%                           | 25,948           | 23.7%                           | 0.005               | 0.013                                |
| 2016                                                                                          | 22,275             | 20.0%                           | 22,057           | 20.2%                           | -0.002              | -0.004                               |
| 2017                                                                                          | 18,851             | 16.9%                           | 19,135           | 17.5%                           | -0.006              | -0.015                               |
| 2018                                                                                          | 10,064             | 9.0%                            | 10,364           | 9.5%                            | -0.004              | -0.015                               |
| 2019+                                                                                         | 15,909             | 14.3%                           | 15,240           | 13.9%                           | 0.003               | 0.010                                |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                    |                                 |                  |                                 |                     |                                      |
| Retinopathy <sup>*</sup>                                                                      | 12,078             | 10.8%                           | 11,758           | 10.7%                           | 0.001               | 0.003                                |
| Nephropathy <sup>*</sup>                                                                      | 7,647              | 6.9%                            | 7,412            | 6.8%                            | 0.001               | 0.003                                |
| Neuropathy <sup>*</sup>                                                                       | 26,058             | 23.4%                           | 25,449           | 23.3%                           | 0.001               | 0.003                                |
| Any IPP or ED Hyperglycemia Visit or Lab <sup>*</sup>                                         | 58,599             | 52.6%                           | 56,532           | 51.7%                           | 0.009               | 0.018                                |
| Hypertension <sup>*</sup>                                                                     | 90,882             | 81.5%                           | 89,065           | 81.4%                           | 0.001               | 0.003                                |
| Dyslipidemia <sup>*</sup>                                                                     | 88,099             | 79.0%                           | 85,721           | 78.3%                           | 0.007               | 0.017                                |
| Coronary Artery Disease <sup>*</sup>                                                          | 22,589             | 20.3%                           | 22,194           | 20.3%                           | 0.000               | -0.001                               |
| Cerebrovascular Disease <sup>*</sup>                                                          | 4,550              | 4.1%                            | 4,494            | 4.1%                            | 0.000               | -0.001                               |
| Peripheral Vascular Disease <sup>*</sup>                                                      | 11,168             | 10.0%                           | 11,199           | 10.2%                           | -0.002              | -0.007                               |
| Congestive Heart Failure <sup>*</sup>                                                         | 7,703              | 6.9%                            | 7,637            | 7.0%                            | -0.001              | -0.003                               |
| Chronic Obstructive Pulmonary Disease <sup>*</sup>                                            | 15,146             | 13.6%                           | 15,133           | 13.8%                           | -0.002              | -0.007                               |
| Depression <sup>*</sup>                                                                       | 19,865             | 17.8%                           | 19,485           | 17.8%                           | 0.000               | 0.000                                |
| Obesity <sup>*</sup>                                                                          | 39,637             | 35.5%                           | 37,965           | 34.7%                           | 0.009               | 0.018                                |
| Cancer (Excluding NMSC) <sup>*</sup>                                                          | 16,558             | 14.8%                           | 16,285           | 14.9%                           | 0.000               | -0.001                               |
| History of Kidney Stones <sup>*</sup>                                                         | 3,892              | 3.5%                            | 3,786            | 3.5%                            | 0.000               | 0.002                                |
| Smoking <sup>*</sup>                                                                          | 20,005             | 17.9%                           | 20,008           | 18.3%                           | -0.003              | -0.009                               |
| Alcohol Use <sup>*</sup>                                                                      | 2,190              | 2.0%                            | 2,241            | 2.0%                            | -0.001              | -0.006                               |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                    |                                 |                  |                                 |                     |                                      |
| Metformin <sup>*</sup>                                                                        | 101,855            | 91.3%                           | 100,029          | 91.4%                           | -0.001              | -0.002                               |
| Sulfonylureas <sup>*</sup>                                                                    | 53,665             | 48.1%                           | 52,968           | 48.4%                           | -0.003              | -0.005                               |
| Thiazolidinediones <sup>*</sup>                                                               | 11,706             | 10.5%                           | 11,306           | 10.3%                           | 0.002               | 0.005                                |
| Any Insulin <sup>*</sup>                                                                      | 30,721             | 27.6%                           | 27,879           | 25.5%                           | 0.021               | 0.047                                |



**Table 1t. Inverse-Probability-of-Treatment and -Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                               | Number             | Percent | Number           | Percent |                     |                                      |
| Angiotensin Converting Enzyme Inhibitors* (ACEis)                                             | 54,785             | 49.1%   | 53,883           | 49.2%   | -0.001              | -0.002                               |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 30,705             | 27.5%   | 29,874           | 27.3%   | 0.002               | 0.005                                |
| Beta Blockers*                                                                                | 38,628             | 34.6%   | 38,224           | 34.9%   | -0.003              | -0.006                               |
| Calcium Channel Blockers*                                                                     | 28,688             | 25.7%   | 28,214           | 25.8%   | -0.001              | -0.001                               |
| Statins*                                                                                      | 79,310             | 71.1%   | 77,784           | 71.1%   | 0.000               | 0.001                                |
| Any Diuretic*                                                                                 | 46,919             | 42.1%   | 45,886           | 41.9%   | 0.001               | 0.003                                |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 55,395             | 49.7%   | 54,406           | 49.7%   | 0.000               | -0.001                               |
| Influenza Vaccine*                                                                            | 51,659             | 46.3%   | 51,033           | 46.6%   | -0.003              | -0.006                               |
| Pneumococcal Vaccine (Ever)*                                                                  | 39,728             | 35.6%   | 39,594           | 36.2%   | -0.006              | -0.011                               |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                    |         |                  |         |                     |                                      |
| Number of AV Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0-4                                                                                           | 12,826             | 11.5%   | 12,516           | 11.4%   | 0.001               | 0.002                                |
| 5-10                                                                                          | 32,612             | 29.2%   | 31,896           | 29.1%   | 0.001               | 0.002                                |
| 11-15                                                                                         | 20,364             | 18.3%   | 19,784           | 18.1%   | 0.002               | 0.005                                |
| 16+                                                                                           | 45,702             | 41.0%   | 45,239           | 41.3%   | -0.004              | -0.007                               |
| Number of ED Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 80,100             | 71.8%   | 78,245           | 71.5%   | 0.003               | 0.007                                |
| 1                                                                                             | 18,363             | 16.5%   | 18,167           | 16.6%   | -0.001              | -0.004                               |
| 2+                                                                                            | 13,042             | 11.7%   | 13,023           | 11.9%   | -0.002              | -0.006                               |
| Number of IP Visits (Categorical)*                                                            |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 99,276             | 89.0%   | 97,300           | 88.9%   | 0.001               | 0.004                                |
| 1                                                                                             | 9,647              | 8.7%    | 9,542            | 8.7%    | -0.001              | -0.002                               |
| 2+                                                                                            | 2,582              | 2.3%    | 2,593            | 2.4%    | -0.001              | -0.004                               |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>                                  |                    |         |                  |         |                     |                                      |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories <sup>4*</sup>                |                    |         |                  |         |                     |                                      |
| 0                                                                                             | 49,710             | 44.6%   | 48,895           | 44.7%   | -0.001              | -0.002                               |
| 1                                                                                             | 24,636             | 22.1%   | 24,072           | 22.0%   | 0.001               | 0.002                                |
| 2                                                                                             | 17,218             | 15.4%   | 16,930           | 15.5%   | 0.000               | -0.001                               |
| 3+                                                                                            | 19,941             | 17.9%   | 19,538           | 17.9%   | 0.000               | 0.001                                |
| Claims-Based Frailty Index Categories <sup>5*</sup>                                           |                    |         |                  |         |                     |                                      |
| 0.25+                                                                                         | 4,054              | 3.6%    | 4,054            | 3.7%    | -0.001              | -0.004                               |
| <0.25                                                                                         | 107,451            | 96.4%   | 105,381          | 96.3%   | 0.001               | 0.004                                |
| Combined Comorbidity Score Categories <sup>6*</sup>                                           |                    |         |                  |         |                     |                                      |
| <1                                                                                            | 50,685             | 45.5%   | 49,340           | 45.1%   | 0.004               | 0.007                                |
| 1                                                                                             | 25,296             | 22.7%   | 24,784           | 22.6%   | 0.000               | 0.001                                |
| 2                                                                                             | 14,858             | 13.3%   | 14,774           | 13.5%   | -0.002              | -0.005                               |
| 3+                                                                                            | 20,665             | 18.5%   | 20,537           | 18.8%   | -0.002              | -0.006                               |

**Table 1t. Inverse-Probability-of-Treatment and -Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                                 | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|-------------------------------------------------------------------------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                                                                                 | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                                 | Number             | Percent | Number           | Percent |                     |                                      |
| <b>Health Characteristics (Assessed in First 360 Days Post-Index)</b>                           |                    |         |                  |         |                     |                                      |
| Retinopathy                                                                                     | 14,030             | 12.6%   | 13,975           | 12.8%   | -0.002              | -0.006                               |
| Nephropathy                                                                                     | 10,116             | 9.1%    | 10,519           | 9.6%    | -0.005              | -0.019                               |
| Neuropathy                                                                                      | 31,007             | 27.8%   | 30,046           | 27.5%   | 0.004               | 0.008                                |
| IPP or ED Hypoglycemia Encounters                                                               |                    |         |                  |         |                     |                                      |
| 0                                                                                               | 111,129            | 99.7%   | 108,970          | 99.6%   | 0.001               | 0.014                                |
| 1                                                                                               | 314                | 0.3%    | 403              | 0.4%    | -0.001              | -0.015                               |
| 2+                                                                                              | 61                 | 0.1%    | 62               | 0.1%    | 0.000               | -0.001                               |
| IPP or ED Hyperglycemia Encounters                                                              |                    |         |                  |         |                     |                                      |
| 0                                                                                               | 108,854            | 97.6%   | 106,118          | 97.0%   | 0.007               | 0.040                                |
| 1                                                                                               | 2,152              | 1.9%    | 2,649            | 2.4%    | -0.005              | -0.034                               |
| 2+                                                                                              | 499                | 0.4%    | 668              | 0.6%    | -0.002              | -0.022                               |
| Hypertension                                                                                    | 89,394             | 80.2%   | 88,345           | 80.7%   | -0.006              | -0.014                               |
| Dyslipidemia                                                                                    | 87,020             | 78.0%   | 83,941           | 76.7%   | 0.013               | 0.032                                |
| Coronary Artery Disease                                                                         | 22,992             | 20.6%   | 22,795           | 20.8%   | -0.002              | -0.005                               |
| Cerebrovascular Disease                                                                         | 4,669              | 4.2%    | 5,107            | 4.7%    | -0.005              | -0.023                               |
| Peripheral Vascular Disease                                                                     | 12,875             | 11.5%   | 13,449           | 12.3%   | -0.007              | -0.023                               |
| Congestive Heart Failure                                                                        | 7,955              | 7.1%    | 8,694            | 7.9%    | -0.008              | -0.031                               |
| Obesity                                                                                         | 39,050             | 35.0%   | 37,348           | 34.1%   | 0.009               | 0.019                                |
| Any HbA1c Test                                                                                  | 101,878            | 91.4%   | 98,787           | 90.3%   | 0.011               | 0.038                                |
| GLP-1RA or GIP/GLP-1RA Initiation                                                               | 8,322              | 7.5%    | 5,713            | 5.2%    | 0.022               | 0.092                                |
| Insulin Initiation                                                                              | 4,598              | 4.1%    | 6,989            | 6.4%    | -0.023              | -0.102                               |
| Frailty Indicators                                                                              | 16,430             | 14.7%   | 17,319           | 15.8%   | -0.011              | -0.030                               |
| Preventive Healthcare                                                                           | 99,998             | 89.7%   | 97,697           | 89.3%   | 0.004               | 0.013                                |
| <b>Health Service Utilization Intensity Metrics (Measured in the First 360 Days Post-Index)</b> |                    |         |                  |         |                     |                                      |
| Number of AV Visits (Categorical)                                                               |                    |         |                  |         |                     |                                      |
| 0-4                                                                                             | 14,206             | 12.7%   | 13,902           | 12.7%   | 0.000               | 0.001                                |
| 5-10                                                                                            | 31,554             | 28.3%   | 29,954           | 27.4%   | 0.009               | 0.021                                |
| 11+                                                                                             | 65,745             | 59.0%   | 65,578           | 59.9%   | -0.010              | -0.020                               |
| Number of ED Visits (Categorical)                                                               |                    |         |                  |         |                     |                                      |
| 0                                                                                               | 82,335             | 73.8%   | 78,578           | 71.8%   | 0.020               | 0.046                                |
| 1                                                                                               | 17,272             | 15.5%   | 18,075           | 16.5%   | -0.010              | -0.028                               |
| 2+                                                                                              | 11,897             | 10.7%   | 12,781           | 11.7%   | -0.010              | -0.032                               |

**Table 1t. Inverse-Probability-of-Treatment and -Censoring Weighted Characteristics of Initiators of Canagliflozin vs Sitagliptin with At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                   | Treatment Strategy |         |                  |         | Covariate Balance   |                                      |
|-----------------------------------|--------------------|---------|------------------|---------|---------------------|--------------------------------------|
|                                   | Canagliflozin ≥180 |         | Sitagliptin ≥180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                   | Number             | Percent | Number           | Percent |                     |                                      |
| Number of IP Visits (Categorical) |                    |         |                  |         |                     |                                      |
| 0                                 | 99,249             | 89.0%   | 96,046           | 87.8%   | 0.012               | 0.039                                |
| 1                                 | 9,287              | 8.3%    | 9,938            | 9.1%    | -0.008              | -0.027                               |
| 2+                                | 2,969              | 2.7%    | 3,451            | 3.2%    | -0.005              | -0.029                               |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma.

**Notes:** Individuals lost to follow-up or experiencing events prior to day 360 are not captured. Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>For weighted data, aggregated standard deviations are calculated using the standard formula for unweighted data, and therefore represent an approximation.

<sup>3</sup>For weighted data, the standardized mean difference is calculated as the difference in weighted means or proportions divided by the pooled standard deviation across treatment groups. Note the pooled standard deviation is calculated using the standard formula for unweighted data, and therefore represents an approximation.

<sup>4</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>5</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>6</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1u. Aggregated Unweighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |                    |                    |                    | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|---------------------|-------------------------|
|                                                                                               | Canagliflozin ≥180 |                    | Canagliflozin <180 |                    | Absolute Difference | Standardized Difference |
| Patient Characteristics <sup>1</sup>                                                          | Number             | Percent            | Number             | Percent            |                     |                         |
| Unique patients                                                                               | 70,294             | 100.0%             | 42,982             | 100.0%             |                     |                         |
| Demographic Characteristics                                                                   | Mean               | Standard Deviation | Mean               | Standard Deviation | Absolute Difference | Standardized Difference |
| Mean Age (Years)*                                                                             | 60.9               | 10.0               | 61.3               | 10.4               |                     |                         |
| Sex                                                                                           | Number             | Percent            | Number             | Percent            |                     |                         |
| Female                                                                                        | 31,512             | 44.8%              | 22,259             | 51.8%              | -0.070              | -0.140                  |
| Male                                                                                          | 38,782             | 55.2%              | 20,723             | 48.2%              | 0.070               | 0.140                   |
| Year                                                                                          |                    |                    |                    |                    |                     |                         |
| 2013                                                                                          | 1,914              | 2.7%               | 863                | 2.0%               | 0.007               | 0.047                   |
| 2014                                                                                          | 10,155             | 14.4%              | 4,446              | 10.3%              | 0.041               | 0.125                   |
| 2015                                                                                          | 17,717             | 25.2%              | 9,621              | 22.4%              | 0.028               | 0.066                   |
| 2016                                                                                          | 14,053             | 20.0%              | 8,499              | 19.8%              | 0.002               | 0.005                   |
| 2017                                                                                          | 11,088             | 15.8%              | 8,053              | 18.7%              | -0.030              | -0.078                  |
| 2018                                                                                          | 5,352              | 7.6%               | 5,120              | 11.9%              | -0.043              | -0.145                  |
| 2019+                                                                                         | 10,015             | 14.2%              | 6,380              | 14.8%              | -0.006              | -0.017                  |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                    |                    |                    |                    |                     |                         |
| Retinopathy*                                                                                  | 7,621              | 10.8%              | 4,698              | 10.9%              | -0.001              | -0.003                  |
| Nephropathy*                                                                                  | 4,604              | 6.5%               | 3,266              | 7.6%               | -0.010              | -0.041                  |
| Neuropathy*                                                                                   | 15,498             | 22.0%              | 11,078             | 25.8%              | -0.037              | -0.087                  |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 36,462             | 51.9%              | 23,146             | 53.9%              | -0.020              | -0.040                  |
| Hypertension*                                                                                 | 57,237             | 81.4%              | 35,080             | 81.6%              | -0.002              | -0.005                  |
| Dyslipidemia*                                                                                 | 56,099             | 79.8%              | 33,234             | 77.3%              | 0.025               | 0.061                   |
| Coronary Artery Disease*                                                                      | 13,868             | 19.7%              | 9,063              | 21.1%              | -0.014              | -0.034                  |
| Cerebrovascular Disease*                                                                      | 2,708              | 3.9%               | 1,884              | 4.4%               | -0.005              | -0.027                  |
| Peripheral Vascular Disease*                                                                  | 6,664              | 9.5%               | 4,718              | 11.0%              | -0.015              | -0.049                  |
| Congestive Heart Failure*                                                                     | 4,591              | 6.5%               | 3,238              | 7.5%               | -0.010              | -0.039                  |
| Chronic Obstructive Pulmonary Disease*                                                        | 8,977              | 12.8%              | 6,435              | 15.0%              | -0.022              | -0.064                  |
| Depression*                                                                                   | 12,229             | 17.4%              | 7,968              | 18.5%              | -0.011              | -0.030                  |
| Obesity*                                                                                      | 24,858             | 35.4%              | 15,419             | 35.9%              | -0.005              | -0.011                  |
| Cancer (Excluding NMSC)*                                                                      | 10,253             | 14.6%              | 6,521              | 15.2%              | -0.006              | -0.016                  |
| History of Kidney Stones*                                                                     | 2,393              | 3.4%               | 1,580              | 3.7%               | -0.003              | -0.015                  |
| Smoking*                                                                                      | 11,951             | 17.0%              | 8,445              | 19.6%              | -0.026              | -0.068                  |
| Alcohol Use*                                                                                  | 1,350              | 1.9%               | 915                | 2.1%               | -0.002              | -0.015                  |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                    |                    |                    |                    |                     |                         |
| Metformin*                                                                                    | 64,596             | 91.9%              | 38,841             | 90.4%              | 0.015               | 0.054                   |
| Sulfonylureas*                                                                                | 33,738             | 48.0%              | 20,586             | 47.9%              | 0.001               | 0.002                   |
| Thiazolidinediones*                                                                           | 7,671              | 10.9%              | 4,258              | 9.9%               | 0.010               | 0.033                   |
| Any Insulin*                                                                                  | 18,875             | 26.9%              | 12,534             | 29.2%              | -0.023              | -0.051                  |

**Table 1u. Aggregated Unweighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |         |                    |         | Covariate Balance   |                         |
|-----------------------------------------------------------------------------------------------|--------------------|---------|--------------------|---------|---------------------|-------------------------|
|                                                                                               | Canagliflozin ≥180 |         | Canagliflozin <180 |         | Absolute Difference | Standardized Difference |
|                                                                                               | Number             | Percent | Number             | Percent |                     |                         |
| Angiotensin Converting Enzyme Inhibitors* (ACEIs)                                             | 34,657             | 49.3%   | 21,039             | 48.9%   | 0.004               | 0.007                   |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 19,633             | 27.9%   | 11,494             | 26.7%   | 0.012               | 0.027                   |
| Beta Blockers*                                                                                | 24,299             | 34.6%   | 14,927             | 34.7%   | -0.002              | -0.003                  |
| Calcium Channel Blockers*                                                                     | 17,971             | 25.6%   | 11,219             | 26.1%   | -0.005              | -0.012                  |
| Statins*                                                                                      | 51,258             | 72.9%   | 29,195             | 67.9%   | 0.050               | 0.110                   |
| Any Diuretic*                                                                                 | 29,221             | 41.6%   | 18,404             | 42.8%   | -0.012              | -0.025                  |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 33,920             | 48.3%   | 22,444             | 52.2%   | -0.040              | -0.079                  |
| Influenza Vaccine*                                                                            | 33,574             | 47.8%   | 18,755             | 43.6%   | 0.041               | 0.083                   |
| Pneumococcal Vaccine (Ever)*                                                                  | 24,976             | 35.5%   | 15,383             | 35.8%   | -0.003              | -0.005                  |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                    |         |                    |         |                     |                         |
| Number of AV Visits (Categorical)*                                                            |                    |         |                    |         |                     |                         |
| 0-4                                                                                           | 8,065              | 11.5%   | 4,971              | 11.6%   | -0.001              | -0.003                  |
| 5-10                                                                                          | 21,163             | 30.1%   | 11,986             | 27.9%   | 0.022               | 0.049                   |
| 11-15                                                                                         | 13,017             | 18.5%   | 7,635              | 17.8%   | 0.008               | 0.020                   |
| 16+                                                                                           | 28,049             | 39.9%   | 18,390             | 42.8%   | -0.029              | -0.059                  |
| Number of ED Visits (Categorical)*                                                            |                    |         |                    |         |                     |                         |
| 0                                                                                             | 52,046             | 74.0%   | 29,139             | 67.8%   | 0.062               | 0.138                   |
| 1                                                                                             | 10,982             | 15.6%   | 7,760              | 18.1%   | -0.024              | -0.065                  |
| 2+                                                                                            | 7,266              | 10.3%   | 6,083              | 14.2%   | -0.038              | -0.117                  |
| Number of IP Visits (Categorical)*                                                            |                    |         |                    |         |                     |                         |
| 0                                                                                             | 63,166             | 89.9%   | 37,632             | 87.6%   | 0.023               | 0.073                   |
| 1                                                                                             | 5,703              | 8.1%    | 4,116              | 9.6%    | -0.015              | -0.052                  |
| 2+                                                                                            | 1,425              | 2.0%    | 1,234              | 2.9%    | -0.008              | -0.055                  |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>                                  |                    |         |                    |         |                     |                         |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories <sup>2*</sup>                |                    |         |                    |         |                     |                         |
| 0                                                                                             | 32,147             | 45.7%   | 18,284             | 42.5%   | 0.032               | 0.064                   |
| 1                                                                                             | 15,496             | 22.0%   | 9,521              | 22.2%   | -0.001              | -0.003                  |
| 2                                                                                             | 10,684             | 15.2%   | 6,828              | 15.9%   | -0.007              | -0.019                  |
| 3+                                                                                            | 11,967             | 17.0%   | 8,349              | 19.4%   | -0.024              | -0.062                  |
| Claims-Based Frailty Index Categories <sup>3*</sup>                                           |                    |         |                    |         |                     |                         |
| 0.25+                                                                                         | 2,348              | 3.3%    | 1,764              | 4.1%    | -0.008              | -0.040                  |
| <0.25                                                                                         | 67,946             | 96.7%   | 41,218             | 95.9%   | 0.008               | 0.040                   |
| Combined Comorbidity Score Categories <sup>4*</sup>                                           |                    |         |                    |         |                     |                         |
| <1                                                                                            | 33,336             | 47.4%   | 18,043             | 42.0%   | 0.054               | 0.110                   |
| 1                                                                                             | 15,677             | 22.3%   | 10,063             | 23.4%   | -0.011              | -0.026                  |
| 2                                                                                             | 9,013              | 12.8%   | 6,064              | 14.1%   | -0.013              | -0.038                  |
| 3+                                                                                            | 12,268             | 17.5%   | 8,812              | 20.5%   | -0.030              | -0.078                  |

**Table 1u. Aggregated Unweighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                          | Treatment Strategy |         |                    |         | Covariate Balance   |                         |
|------------------------------------------------------------------------------------------|--------------------|---------|--------------------|---------|---------------------|-------------------------|
|                                                                                          | Canagliflozin ≥180 |         | Canagliflozin <180 |         | Absolute Difference | Standardized Difference |
|                                                                                          | Number             | Percent | Number             | Percent |                     |                         |
| Health Characteristics (Assessed in First 360 Days Post-Index)                           |                    |         |                    |         |                     |                         |
| Retinopathy                                                                              | 8,734              | 12.4%   | 5,467              | 12.7%   | -0.003              | -0.009                  |
| Nephropathy                                                                              | 6,028              | 8.6%    | 4,400              | 10.2%   | -0.017              | -0.057                  |
| Neuropathy                                                                               | 18,624             | 26.5%   | 13,011             | 30.3%   | -0.038              | -0.084                  |
| IPP or ED Hypoglycemia Encounters                                                        |                    |         |                    |         |                     |                         |
| 0                                                                                        | 70,084             | 99.7%   | 42,762             | 99.5%   | 0.002               | 0.034                   |
| 1                                                                                        | 180                | 0.3%    | 188                | 0.4%    | -0.002              | -0.031                  |
| 2+                                                                                       | 30                 | 0.0%    | 32                 | 0.1%    | 0.000               | -0.013                  |
| IPP or ED Hyperglycemia Encounters                                                       |                    |         |                    |         |                     |                         |
| 0                                                                                        | 68,841             | 97.9%   | 40,966             | 95.3%   | 0.026               | 0.146                   |
| 1                                                                                        | 1,192              | 1.7%    | 1,572              | 3.7%    | -0.020              | -0.122                  |
| 2+                                                                                       | 261                | 0.4%    | 444                | 1.0%    | -0.007              | -0.079                  |
| Hypertension                                                                             | 56,369             | 80.2%   | 34,399             | 80.0%   | 0.002               | 0.004                   |
| Dyslipidemia                                                                             | 55,391             | 78.8%   | 32,279             | 75.1%   | 0.037               | 0.088                   |
| Coronary Artery Disease                                                                  | 14,154             | 20.1%   | 9,529              | 22.2%   | -0.020              | -0.050                  |
| Cerebrovascular Disease                                                                  | 2,788              | 4.0%    | 2,070              | 4.8%    | -0.008              | -0.041                  |
| Peripheral Vascular Disease                                                              | 7,731              | 11.0%   | 5,503              | 12.8%   | -0.018              | -0.056                  |
| Congestive Heart Failure                                                                 | 4,729              | 6.7%    | 3,796              | 8.8%    | -0.021              | -0.079                  |
| Obesity                                                                                  | 24,431             | 34.8%   | 15,717             | 36.6%   | -0.018              | -0.038                  |
| Any HbA1c Test                                                                           | 64,616             | 91.9%   | 37,830             | 88.0%   | 0.039               | 0.130                   |
| GLP-1RA or GIP/GLP-1RA Initiation                                                        | 5,022              | 7.1%    | 4,593              | 10.7%   | -0.035              | -0.125                  |
| Insulin Initiation                                                                       | 2,752              | 3.9%    | 3,853              | 9.0%    | -0.050              | -0.207                  |
| Frailty Indicators                                                                       | 9,769              | 13.9%   | 7,161              | 16.7%   | -0.028              | -0.077                  |
| Preventive Healthcare                                                                    | 63,392             | 90.2%   | 37,311             | 86.8%   | 0.034               | 0.106                   |
| Health Service Utilization Intensity Metrics (Measured in the First 360 Days Post-Index) |                    |         |                    |         |                     |                         |
| Number of AV Visits (Categorical)                                                        |                    |         |                    |         |                     |                         |
| 0-4                                                                                      | 8,988              | 12.8%   | 5,770              | 13.4%   | -0.006              | -0.019                  |
| 5-10                                                                                     | 20,515             | 29.2%   | 10,839             | 25.2%   | 0.040               | 0.089                   |
| 11+                                                                                      | 40,791             | 58.0%   | 26,373             | 61.4%   | -0.033              | -0.068                  |
| Number of ED Visits (Categorical)                                                        |                    |         |                    |         |                     |                         |
| 0                                                                                        | 53,076             | 75.5%   | 28,843             | 67.1%   | 0.084               | 0.187                   |
| 1                                                                                        | 10,494             | 14.9%   | 7,765              | 18.1%   | -0.031              | -0.085                  |
| 2+                                                                                       | 6,724              | 9.6%    | 6,374              | 14.8%   | -0.053              | -0.161                  |

**Table 1u. Aggregated Unweighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                   | Treatment Strategy |         |                    |         | Covariate Balance   |                         |
|-----------------------------------|--------------------|---------|--------------------|---------|---------------------|-------------------------|
|                                   | Canagliflozin ≥180 |         | Canagliflozin <180 |         | Absolute Difference | Standardized Difference |
|                                   | Number             | Percent | Number             | Percent |                     |                         |
| Number of IP Visits (Categorical) |                    |         |                    |         |                     |                         |
| 0                                 | 63,099             | 89.8%   | 36,565             | 85.1%   | 0.047               | 0.142                   |
| 1                                 | 5,529              | 7.9%    | 4,586              | 10.7%   | -0.028              | -0.097                  |
| 2+                                | 1,666              | 2.4%    | 1,831              | 4.3%    | -0.019              | -0.106                  |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma.

**Notes:** Individuals lost to follow-up or experiencing events prior to day 360 are not captured. Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>3</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>4</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 1v. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |                                 |                    |                                 | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |                                 | Canagliflozin <180 |                                 | Absolute Difference | Standardized Difference <sup>3</sup> |
| Patient Characteristics <sup>1</sup>                                                          | Number             | Percent                         | Number             | Percent                         |                     |                                      |
| Unique patients                                                                               | 111,765            | 100.0%                          | 107,036            | 100.0%                          |                     |                                      |
| Demographic Characteristics                                                                   | Mean               | Standard Deviation <sup>2</sup> | Mean               | Standard Deviation <sup>2</sup> | Absolute Difference | Standardized Difference <sup>3</sup> |
| Mean Age (Years)*                                                                             | 61.1               | 12.9                            | 61.3               | 16.1                            |                     |                                      |
| Sex                                                                                           | Number             | Percent                         | Number             | Percent                         |                     |                                      |
| Female                                                                                        | 53,053             | 47.5%                           | 51,164             | 47.8%                           | -0.003              | -0.007                               |
| Male                                                                                          | 58,712             | 52.5%                           | 55,872             | 52.2%                           | 0.003               | 0.007                                |
| Year                                                                                          |                    |                                 |                    |                                 |                     |                                      |
| 2013                                                                                          | 2,755              | 2.5%                            | 2,359              | 2.2%                            | 0.003               | 0.017                                |
| 2014                                                                                          | 14,611             | 13.1%                           | 12,949             | 12.1%                           | 0.010               | 0.029                                |
| 2015                                                                                          | 27,069             | 24.2%                           | 25,014             | 23.4%                           | 0.009               | 0.020                                |
| 2016                                                                                          | 22,296             | 19.9%                           | 21,017             | 19.6%                           | 0.003               | 0.008                                |
| 2017                                                                                          | 18,921             | 16.9%                           | 18,577             | 17.4%                           | -0.004              | -0.011                               |
| 2018                                                                                          | 10,186             | 9.1%                            | 10,674             | 10.0%                           | -0.009              | -0.029                               |
| 2019+                                                                                         | 15,927             | 14.3%                           | 16,447             | 15.4%                           | -0.011              | -0.031                               |
| Health Characteristics (Measured in the 365-Days Prior to Index Date, Unless Otherwise Noted) |                    |                                 |                    |                                 |                     |                                      |
| Retinopathy*                                                                                  | 12,093             | 10.8%                           | 11,691             | 10.9%                           | -0.001              | -0.003                               |
| Nephropathy*                                                                                  | 7,667              | 6.9%                            | 7,579              | 7.1%                            | -0.002              | -0.009                               |
| Neuropathy*                                                                                   | 26,162             | 23.4%                           | 25,692             | 24.0%                           | -0.006              | -0.014                               |
| Any IPP or ED Hyperglycemia Visit or Lab*                                                     | 58,773             | 52.6%                           | 55,814             | 52.1%                           | 0.004               | 0.009                                |
| Hypertension*                                                                                 | 91,082             | 81.5%                           | 87,470             | 81.7%                           | -0.002              | -0.006                               |
| Dyslipidemia*                                                                                 | 88,242             | 79.0%                           | 84,442             | 78.9%                           | 0.001               | 0.002                                |
| Coronary Artery Disease*                                                                      | 22,653             | 20.3%                           | 21,894             | 20.5%                           | -0.002              | -0.005                               |
| Cerebrovascular Disease*                                                                      | 4,566              | 4.1%                            | 4,368              | 4.1%                            | 0.000               | 0.000                                |
| Peripheral Vascular Disease*                                                                  | 11,220             | 10.0%                           | 10,886             | 10.2%                           | -0.001              | -0.004                               |
| Congestive Heart Failure*                                                                     | 7,742              | 6.9%                            | 7,472              | 7.0%                            | -0.001              | -0.002                               |
| Chronic Obstructive Pulmonary Disease*                                                        | 15,228             | 13.6%                           | 14,753             | 13.8%                           | -0.002              | -0.005                               |
| Depression*                                                                                   | 19,937             | 17.8%                           | 19,137             | 17.9%                           | 0.000               | -0.001                               |
| Obesity*                                                                                      | 39,710             | 35.5%                           | 38,112             | 35.6%                           | -0.001              | -0.002                               |
| Cancer (Excluding NMSC)*                                                                      | 16,591             | 14.8%                           | 16,291             | 15.2%                           | -0.004              | -0.010                               |
| History of Kidney Stones*                                                                     | 3,908              | 3.5%                            | 3,853              | 3.6%                            | -0.001              | -0.006                               |
| Smoking*                                                                                      | 20,093             | 18.0%                           | 19,641             | 18.3%                           | -0.004              | -0.010                               |
| Alcohol Use*                                                                                  | 2,204              | 2.0%                            | 2,160              | 2.0%                            | 0.000               | -0.003                               |
| Medical Product Use (Measured in the 365 Days Prior to Index Date, Unless Otherwise Noted)    |                    |                                 |                    |                                 |                     |                                      |
| Metformin*                                                                                    | 102,068            | 91.3%                           | 97,706             | 91.3%                           | 0.000               | 0.001                                |
| Sulfonylureas*                                                                                | 53,791             | 48.1%                           | 51,229             | 47.9%                           | 0.003               | 0.005                                |
| Thiazolidinediones*                                                                           | 11,728             | 10.5%                           | 11,116             | 10.4%                           | 0.001               | 0.004                                |
| Any Insulin*                                                                                  | 30,836             | 27.6%                           | 29,496             | 27.6%                           | 0.000               | 0.001                                |



**Table 1v. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                               | Treatment Strategy |         |                    |         | Covariate Balance   |                                      |
|-----------------------------------------------------------------------------------------------|--------------------|---------|--------------------|---------|---------------------|--------------------------------------|
|                                                                                               | Canagliflozin ≥180 |         | Canagliflozin <180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                               | Number             | Percent | Number             | Percent |                     |                                      |
| Angiotensin Converting Enzyme Inhibitors* (ACEIs)                                             | 54,904             | 49.1%   | 52,603             | 49.1%   | 0.000               | 0.000                                |
| Angiotensin Receptor Blockers (ARBs)*                                                         | 30,742             | 27.5%   | 29,480             | 27.5%   | 0.000               | -0.001                               |
| Beta Blockers*                                                                                | 38,715             | 34.6%   | 37,571             | 35.1%   | -0.005              | -0.010                               |
| Calcium Channel Blockers*                                                                     | 28,754             | 25.7%   | 27,957             | 26.1%   | -0.004              | -0.009                               |
| Statins*                                                                                      | 79,388             | 71.0%   | 76,071             | 71.1%   | 0.000               | -0.001                               |
| Any Diuretic*                                                                                 | 47,030             | 42.1%   | 45,336             | 42.4%   | -0.003              | -0.006                               |
| Aspirin, Acetaminophen or Other NSAIDs*                                                       | 55,576             | 49.7%   | 53,223             | 49.7%   | 0.000               | 0.000                                |
| Influenza Vaccine*                                                                            | 51,717             | 46.3%   | 50,095             | 46.8%   | -0.005              | -0.011                               |
| Pneumococcal Vaccine (Ever)*                                                                  | 39,791             | 35.6%   | 39,015             | 36.5%   | -0.008              | -0.018                               |
| <b>Health Service Utilization Intensity Metrics (Measured in the 365 Days Prior to Index)</b> |                    |         |                    |         |                     |                                      |
| Number of AV Visits (Categorical)*                                                            |                    |         |                    |         |                     |                                      |
| 0-4                                                                                           | 12,847             | 11.5%   | 12,168             | 11.4%   | 0.001               | 0.004                                |
| 5-10                                                                                          | 32,672             | 29.2%   | 30,763             | 28.7%   | 0.005               | 0.011                                |
| 11-15                                                                                         | 20,398             | 18.3%   | 19,374             | 18.1%   | 0.002               | 0.004                                |
| 16+                                                                                           | 45,848             | 41.0%   | 44,731             | 41.8%   | -0.008              | -0.016                               |
| Number of ED Visits (Categorical)*                                                            |                    |         |                    |         |                     |                                      |
| 0                                                                                             | 80,151             | 71.7%   | 76,609             | 71.6%   | 0.001               | 0.003                                |
| 1                                                                                             | 18,430             | 16.5%   | 17,802             | 16.6%   | -0.001              | -0.004                               |
| 2+                                                                                            | 13,184             | 11.8%   | 12,625             | 11.8%   | 0.000               | 0.000                                |
| Number of IP Visits (Categorical)*                                                            |                    |         |                    |         |                     |                                      |
| 0                                                                                             | 99,466             | 89.0%   | 95,134             | 88.9%   | 0.001               | 0.004                                |
| 1                                                                                             | 9,692              | 8.7%    | 9,321              | 8.7%    | 0.000               | -0.001                               |
| 2+                                                                                            | 2,607              | 2.3%    | 2,581              | 2.4%    | -0.001              | -0.005                               |
| <b>Risk Scores (Measured in the 365 Days Prior to Index)</b>                                  |                    |         |                    |         |                     |                                      |
| Adapted Diabetes Complications Severity Index (aDCSI) Categories <sup>4*</sup>                |                    |         |                    |         |                     |                                      |
| 0                                                                                             | 49,805             | 44.6%   | 47,104             | 44.0%   | 0.006               | 0.011                                |
| 1                                                                                             | 24,686             | 22.1%   | 23,733             | 22.2%   | -0.001              | -0.002                               |
| 2                                                                                             | 17,259             | 15.4%   | 16,623             | 15.5%   | -0.001              | -0.002                               |
| 3+                                                                                            | 20,015             | 17.9%   | 19,577             | 18.3%   | -0.004              | -0.010                               |
| Claims-Based Frailty Index Categories <sup>5*</sup>                                           |                    |         |                    |         |                     |                                      |
| 0.25+                                                                                         | 4,078              | 3.6%    | 3,903              | 3.6%    | 0.000               | 0.000                                |
| <0.25                                                                                         | 107,687            | 96.4%   | 103,133            | 96.4%   | 0.000               | 0.000                                |
| Combined Comorbidity Score Categories <sup>6*</sup>                                           |                    |         |                    |         |                     |                                      |
| <1                                                                                            | 50,729             | 45.4%   | 47,817             | 44.7%   | 0.007               | 0.014                                |
| 1                                                                                             | 25,351             | 22.7%   | 24,450             | 22.8%   | -0.002              | -0.004                               |
| 2                                                                                             | 14,909             | 13.3%   | 14,532             | 13.6%   | -0.002              | -0.007                               |
| 3+                                                                                            | 20,777             | 18.6%   | 20,237             | 18.9%   | -0.003              | -0.008                               |

**Table 1v. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                          | Treatment Strategy |         |                    |         | Covariate Balance   |                                      |
|------------------------------------------------------------------------------------------|--------------------|---------|--------------------|---------|---------------------|--------------------------------------|
|                                                                                          | Canagliflozin ≥180 |         | Canagliflozin <180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                                                                          | Number             | Percent | Number             | Percent |                     |                                      |
| Health Characteristics (Assessed in First 360 Days Post-Index)                           |                    |         |                    |         |                     |                                      |
| Retinopathy                                                                              | 14,059             | 12.6%   | 13,488             | 12.6%   | 0.000               | -0.001                               |
| Nephropathy                                                                              | 10,168             | 9.1%    | 9,997              | 9.3%    | -0.002              | -0.008                               |
| Neuropathy                                                                               | 31,119             | 27.8%   | 30,551             | 28.5%   | -0.007              | -0.016                               |
| IPP or ED Hypoglycemia Encounters                                                        |                    |         |                    |         |                     |                                      |
| 0                                                                                        | 111,383            | 99.7%   | 106,575            | 99.6%   | 0.001               | 0.014                                |
| 1                                                                                        | 318                | 0.3%    | 395                | 0.4%    | -0.001              | -0.015                               |
| 2+                                                                                       | 64                 | 0.1%    | 67                 | 0.1%    | 0.000               | -0.002                               |
| IPP or ED Hyperglycemia Encounters                                                       |                    |         |                    |         |                     |                                      |
| 0                                                                                        | 109,083            | 97.6%   | 102,833            | 96.1%   | 0.015               | 0.087                                |
| 1                                                                                        | 2,171              | 1.9%    | 3,331              | 3.1%    | -0.012              | -0.075                               |
| 2+                                                                                       | 510                | 0.5%    | 872                | 0.8%    | -0.004              | -0.045                               |
| Hypertension                                                                             | 89,578             | 80.1%   | 86,136             | 80.5%   | -0.003              | -0.008                               |
| Dyslipidemia                                                                             | 87,164             | 78.0%   | 82,000             | 76.6%   | 0.014               | 0.033                                |
| Coronary Artery Disease                                                                  | 23,062             | 20.6%   | 23,092             | 21.6%   | -0.009              | -0.023                               |
| Cerebrovascular Disease                                                                  | 4,692              | 4.2%    | 4,769              | 4.5%    | -0.003              | -0.013                               |
| Peripheral Vascular Disease                                                              | 12,926             | 11.6%   | 12,791             | 12.0%   | -0.004              | -0.012                               |
| Congestive Heart Failure                                                                 | 8,002              | 7.2%    | 8,677              | 8.1%    | -0.009              | -0.036                               |
| Obesity                                                                                  | 39,133             | 35.0%   | 38,599             | 36.1%   | -0.010              | -0.022                               |
| Any HbA1c Test                                                                           | 102,060            | 91.3%   | 95,433             | 89.2%   | 0.022               | 0.073                                |
| GLP-1RA or GIP/GLP-1RA Initiation                                                        | 8,351              | 7.5%    | 10,671             | 10.0%   | -0.025              | -0.089                               |
| Insulin Initiation                                                                       | 4,621              | 4.1%    | 9,209              | 8.6%    | -0.045              | -0.184                               |
| Frailty Indicators                                                                       | 16,508             | 14.8%   | 16,653             | 15.6%   | -0.008              | -0.022                               |
| Preventive Healthcare                                                                    | 100,183            | 89.6%   | 93,891             | 87.7%   | 0.019               | 0.061                                |
| Health Service Utilization Intensity Metrics (Measured in the First 360 Days Post-Index) |                    |         |                    |         |                     |                                      |
| Number of AV Visits (Categorical)                                                        |                    |         |                    |         |                     |                                      |
| 0-4                                                                                      | 14,248             | 12.7%   | 14,209             | 13.3%   | -0.005              | -0.016                               |
| 5-10                                                                                     | 31,597             | 28.3%   | 28,052             | 26.2%   | 0.021               | 0.046                                |
| 11+                                                                                      | 65,920             | 59.0%   | 64,775             | 60.5%   | -0.015              | -0.031                               |
| Number of ED Visits (Categorical)                                                        |                    |         |                    |         |                     |                                      |
| 0                                                                                        | 82,427             | 73.8%   | 75,163             | 70.2%   | 0.035               | 0.079                                |
| 1                                                                                        | 17,321             | 15.5%   | 18,377             | 17.2%   | -0.017              | -0.045                               |
| 2+                                                                                       | 12,016             | 10.8%   | 13,496             | 12.6%   | -0.019              | -0.058                               |

**Table 1v. Inverse-Probability-of-Censoring Weighted Characteristics of Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360 Post-Index\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                   | Treatment Strategy |         |                    |         | Covariate Balance   |                                      |
|-----------------------------------|--------------------|---------|--------------------|---------|---------------------|--------------------------------------|
|                                   | Canagliflozin ≥180 |         | Canagliflozin <180 |         | Absolute Difference | Standardized Difference <sup>3</sup> |
|                                   | Number             | Percent | Number             | Percent |                     |                                      |
| Number of IP Visits (Categorical) |                    |         |                    |         |                     |                                      |
| 0                                 | 99,429             | 89.0%   | 92,996             | 86.9%   | 0.021               | 0.064                                |
| 1                                 | 9,331              | 8.3%    | 10,324             | 9.6%    | -0.013              | -0.045                               |
| 2+                                | 3,004              | 2.7%    | 3,716              | 3.5%    | -0.008              | -0.045                               |

**Abbreviations :** AV = ambulatory visit; CV = cardiovascular; Dx = diagnosis; ED = emergency department; GIP/GLP-1RA = glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; GLP-1RA = glucagon-like peptide-1 receptor agonist; HbA1c = hemoglobin A1c; IP = inpatient; IPP = inpatient encounter, principal diagnosis; N = number; NaN = not a number; N/A = not applicable; NMSC = non-melanoma skin cancer; NSAIDs = nonsteroidal anti-inflammatory drugs; RCC = renal cell carcinoma.

**Notes:** Individuals lost to follow-up or experiencing events prior to day 360 are not captured. Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

Frailty indicators assessed in claims include dementia therapies, loop diuretics, digoxin, and wheelchair/home hospital bed claims.

Preventive healthcare assessed in claims includes breast, cervical, colorectal and prostate cancer screenings; bone mineral density screenings; optometry visits; glaucoma therapies; and lipid panel testing.

\*Covariate included in the treatment and censoring propensity score logistic regression models.

<sup>1</sup>Covariates in blue show a standardized difference greater than 0.1.

<sup>2</sup>For weighted data, aggregated standard deviations are calculated using the standard formula for unweighted data, and therefore represent an approximation.

<sup>3</sup>For weighted data, the standardized mean difference is calculated as the difference in weighted means or proportions divided by the pooled standard deviation across treatment groups. Note the pooled standard deviation is calculated using the standard formula for unweighted data, and therefore represents an approximation.

<sup>4</sup>Chang H-Y, Weiner JP, Richards TM, Bleich SN, Segal JB. Validating the adapted Diabetes Complications Severity Index in claims data. Am J Manag Care. 2012;18(11):721-726.

<sup>5</sup>Kim DH, Schneeweiss S, Glynn RJ, Lipsitz LA, Rockwood K, Avorn J. Measuring frailty in Medicare data: development and validation of a claims-based frailty index. J Gerontol A Biol Sci Med Sci. 2018;73(7):980-987.

<sup>6</sup>Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759. Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and validation of the combined comorbidity score for ICD-10-CM. Med Care. 2017;55(12):1046-1051.

**Table 2a. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                       | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|-------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                            |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                        | 111,295                             | 348,936.72                           | 1,145.15                          | 3.14                               | 193                                  | 5.53                                            | 0.173413                  | -0.57                                                      | 0.008645                                |
| ≥180 days SITA                                                                                        | 693,703                             | 1,874,154.29                         | 986.78                            | 2.70                               | 1,143                                | 6.10                                            | 0.164768                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                        | 78,404                              | 235,781.40                           | 1,098.40                          | 3.01                               | 144                                  | 6.11                                            | 0.183664                  | 0.01                                                       | 0.018896                                |
| <180 days SITA                                                                                        | 413,040                             | 1,156,140.93                         | 1,022.37                          | 2.80                               | 736                                  | 6.37                                            | 0.178191                  | 0.27                                                       | 0.013423                                |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b>        |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                        | 158,630                             | 498,875.99                           | 1,148.68                          | 3.14                               | 280                                  | 5.61                                            | 0.176571                  | -0.76                                                      | -0.007041                               |
| ≥180 days SITA                                                                                        | 157,577                             | 453,739.40                           | 1,051.73                          | 2.88                               | 289                                  | 6.38                                            | 0.183612                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                        | 150,205                             | 461,437.52                           | 1,122.07                          | 3.07                               | 297                                  | 6.45                                            | 0.198033                  | 0.07                                                       | 0.014421                                |
| <180 days SITA                                                                                        | 155,070                             | 467,344.76                           | 1,100.78                          | 3.01                               | 287                                  | 6.15                                            | 0.185314                  | -0.23                                                      | 0.001702                                |
| <b>Sensitivity Analysis Using Inverse Probability of Treatment or Censoring Weighting, Separately</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <b>Inverse Probability of Treatment-Weighted Analysis (1% Weight Truncation)</b>                      |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |
| ≥180 days SITA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |
| <180 days CANA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |
| <180 days SITA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |
| <b>Inverse Probability of Censoring-Weighted Analysis</b>                                             |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |
| ≥180 days SITA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |
| <180 days CANA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |
| <180 days SITA                                                                                        | --                                  | --                                   | --                                | --                                 | --                                   | --                                              | --                        | --                                                         | --                                      |

**Table 2a. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                       | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                       | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                       | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                            |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                        | 0.88 (0.70, 1.11)                            | 0.284        | 0.93 (0.80, 1.09)                            | 0.375        | 0.95 (0.81, 1.11)                               | 0.519        | 0.95 (0.81, 1.11)                            | 0.519        |
| ≥180 days SITA                                                                                        | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                        | 0.97 (0.75, 1.26)                            | 0.833        | 1.01 (0.83, 1.23)                            | 0.953        | 1.06 (0.89, 1.26)                               | 0.525        | 1.06 (0.89, 1.26)                            | 0.525        |
| <180 days SITA                                                                                        | 0.96 (0.80, 1.16)                            | 0.69         | 1.03 (0.96, 1.11)                            | 0.451        | 1.01 (0.85, 1.20)                               | 0.903        | 1.04 (0.95, 1.15)                            | 0.363        |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b>        |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                        | 0.88 (0.75, 1.04)                            | 0.125        | 0.88 (0.75, 1.04)                            | 0.125        | 0.88 (0.75, 1.04)                               | 0.148        | 0.88 (0.75, 1.04)                            | 0.148        |
| ≥180 days SITA                                                                                        | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                        | 0.97 (0.79, 1.20)                            | 0.8          | 0.97 (0.79, 1.20)                            | 0.8          | 1.03 (0.85, 1.24)                               | 0.774        | 1.03 (0.85, 1.24)                            | 0.774        |
| <180 days SITA                                                                                        | 0.99 (0.86, 1.16)                            | 0.946        | 0.99 (0.87, 1.13)                            | 0.928        | 0.99 (0.86, 1.12)                               | 0.826        | 0.99 (0.86, 1.12)                            | 0.826        |
| <b>Sensitivity Analysis Using Inverse Probability of Treatment or Censoring Weighting, Separately</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| <b>Inverse Probability of Treatment-Weighted Analysis (1% Weight Truncation)</b>                      |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                        | --                                           | --           | --                                           | --           | 0.88 (0.75, 1.03)                               | 0.120        | 0.88 (0.75, 1.03)                            | 0.120        |
| ≥180 days SITA                                                                                        | --                                           | --           | --                                           | --           | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                        | --                                           | --           | --                                           | --           | 0.99 (0.82, 1.19)                               | 0.905        | 0.99 (0.82, 1.19)                            | 0.905        |
| <180 days SITA                                                                                        | --                                           | --           | --                                           | --           | 1.00 (0.89, 1.14)                               | 0.941        | 1.00 (0.89, 1.14)                            | 0.941        |
| <b>Inverse Probability of Censoring-Weighted Analysis</b>                                             |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                        | --                                           | --           | --                                           | --           | 0.97 (0.82, 1.13)                               | 0.660        | 0.97 (0.82, 1.13)                            | 0.660        |
| ≥180 days SITA                                                                                        | --                                           | --           | --                                           | --           | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                        | --                                           | --           | --                                           | --           | 1.12 (0.93, 1.35)                               | 0.218        | 1.12 (0.93, 1.35)                            | 0.218        |
| <180 days SITA                                                                                        | --                                           | --           | --                                           | --           | 0.99 (0.80, 1.24)                               | 0.953        | 1.04 (0.94, 1.15)                            | 0.435        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 2b. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Sex**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Sex: Female</b>                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 51,364                              | 158,211.41                           | 1,125.04                          | 3.08                               | 65                                   | 4.11                                            | 0.126548                  | -0.50                                                      | 0.000525                                |
| ≥180 days SITA                                                                                 | 363,425                             | 993,292.12                           | 998.28                            | 2.73                               | 458                                  | 4.61                                            | 0.126023                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 39,954                              | 118,888.56                           | 1,086.85                          | 2.98                               | 48                                   | 4.04                                            | 0.120138                  | -0.57                                                      | -0.005885                               |
| <180 days SITA                                                                                 | 221,984                             | 629,947.75                           | 1,036.51                          | 2.84                               | 306                                  | 4.86                                            | 0.137848                  | 0.25                                                       | 0.011825                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 75,668                              | 234,971.17                           | 1,134.21                          | 3.11                               | 103                                  | 4.38                                            | 0.135927                  | -0.26                                                      | -0.000573                               |
| ≥180 days SITA                                                                                 | 75,467                              | 221,931.47                           | 1,074.12                          | 2.94                               | 103                                  | 4.64                                            | 0.136500                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 72,316                              | 220,087.08                           | 1,111.60                          | 3.04                               | 93                                   | 4.22                                            | 0.128474                  | -0.42                                                      | -0.008025                               |
| <180 days SITA                                                                                 | 74,407                              | 227,863.86                           | 1,118.54                          | 3.06                               | 110                                  | 4.85                                            | 0.148439                  | 0.21                                                       | 0.011940                                |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Sex: Male</b>                       |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 59,915                              | 190,658.14                           | 1,162.28                          | 3.18                               | 128                                  | 6.71                                            | 0.213636                  | -1.07                                                      | 0.005936                                |
| ≥180 days SITA                                                                                 | 329,321                             | 879,323.54                           | 975.26                            | 2.67                               | 684                                  | 7.78                                            | 0.207700                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 38,440                              | 116,843.20                           | 1,110.22                          | 3.04                               | 95                                   | 8.13                                            | 0.247138                  | 0.35                                                       | 0.039438                                |
| <180 days SITA                                                                                 | 190,397                             | 525,080.96                           | 1,007.29                          | 2.76                               | 430                                  | 8.19                                            | 0.225844                  | 0.41                                                       | 0.018144                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 82,793                              | 263,486.25                           | 1,162.39                          | 3.18                               | 176                                  | 6.69                                            | 0.212939                  | -1.35                                                      | -0.013976                               |
| ≥180 days SITA                                                                                 | 82,033                              | 231,497.13                           | 1,030.74                          | 2.82                               | 186                                  | 8.04                                            | 0.226915                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 78,062                              | 242,016.02                           | 1,132.38                          | 3.10                               | 205                                  | 8.49                                            | 0.263098                  | 0.45                                                       | 0.036183                                |
| <180 days SITA                                                                                 | 80,756                              | 239,868.74                           | 1,084.90                          | 2.97                               | 179                                  | 7.48                                            | 0.222206                  | -0.56                                                      | -0.004709                               |

**Table 2b. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Sex**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Sex: Female</b>                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.74 (0.30, 1.86)                            | 0.527        | 0.92 (0.68, 1.23)                            | 0.563        | 0.96 (0.74, 1.25)                               | 0.772        | 0.96 (0.74, 1.25)                            | 0.772        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.44 (0.12, 1.66)                            | 0.225        | 0.87 (0.61, 1.23)                            | 0.426        | 0.93 (0.69, 1.26)                               | 0.651        | 0.93 (0.69, 1.26)                            | 0.651        |
| <180 days SITA                                                                                 | 0.99 (0.77, 1.26)                            | 0.92         | 1.07 (0.94, 1.21)                            | 0.312        | 1.08 (0.93, 1.25)                               | 0.296        | 1.08 (0.93, 1.25)                            | 0.296        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.74 (0.27, 2.04)                            | 0.56         | 0.90 (0.66, 1.22)                            | 0.497        | 0.95 (0.71, 1.25)                               | 0.702        | 0.95 (0.71, 1.25)                            | 0.702        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.37 (0.08, 1.70)                            | 0.2          | 0.83 (0.56, 1.22)                            | 0.34         | 0.92 (0.67, 1.26)                               | 0.589        | 0.92 (0.67, 1.26)                            | 0.589        |
| <180 days SITA                                                                                 | 1.01 (0.79, 1.29)                            | 0.928        | 1.02 (0.84, 1.24)                            | 0.815        | 1.04 (0.85, 1.28)                               | 0.686        | 1.04 (0.85, 1.28)                            | 0.686        |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Sex: Male</b>                       |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.87 (0.65, 1.17)                            | 0.355        | 0.89 (0.73, 1.10)                            | 0.285        | 0.91 (0.75, 1.11)                               | 0.354        | 0.91 (0.75, 1.11)                            | 0.354        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.99 (0.73, 1.36)                            | 0.969        | 1.03 (0.82, 1.31)                            | 0.777        | 1.10 (0.88, 1.37)                               | 0.4          | 1.10 (0.88, 1.37)                            | 0.4          |
| <180 days SITA                                                                                 | 0.93 (0.72, 1.22)                            | 0.612        | 1.01 (0.92, 1.12)                            | 0.809        | 1.01 (0.79, 1.28)                               | 0.935        | 1.03 (0.91, 1.17)                            | 0.587        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.86 (0.69, 1.07)                            | 0.173        | 0.86 (0.69, 1.07)                            | 0.173        | 0.85 (0.69, 1.05)                               | 0.132        | 0.85 (0.69, 1.05)                            | 0.132        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 1.04 (0.82, 1.33)                            | 0.735        | 1.04 (0.82, 1.33)                            | 0.735        | 1.09 (0.86, 1.39)                               | 0.463        | 1.09 (0.86, 1.39)                            | 0.463        |
| <180 days SITA                                                                                 | 0.87 (0.64, 1.19)                            | 0.395        | 0.94 (0.81, 1.10)                            | 0.461        | 0.93 (0.73, 1.19)                               | 0.569        | 0.95 (0.80, 1.12)                            | 0.529        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 2c. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Age**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, &lt;65 Years</b>                    |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 66,000                              | 185,832.75                           | 1,028.42                          | 2.82                               | 64                                   | 3.44                                            | 0.096970                  | -0.65                                                      | -0.001682                               |
| ≥180 days SITA                                                                                 | 301,059                             | 725,232.23                           | 879.86                            | 2.41                               | 297                                  | 4.10                                            | 0.098652                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 45,112                              | 122,923.47                           | 995.25                            | 2.72                               | 47                                   | 3.82                                            | 0.104185                  | -0.27                                                      | 0.005533                                |
| <180 days SITA                                                                                 | 183,803                             | 458,470.80                           | 911.06                            | 2.49                               | 182                                  | 3.97                                            | 0.099019                  | -0.13                                                      | 0.000367                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 91,558                              | 258,126.10                           | 1,029.74                          | 2.82                               | 90                                   | 3.47                                            | 0.097783                  | -0.94                                                      | -0.014885                               |
| ≥180 days SITA                                                                                 | 90,757                              | 231,936.06                           | 933.42                            | 2.56                               | 102                                  | 4.41                                            | 0.112668                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 87,377                              | 244,364.73                           | 1,021.48                          | 2.80                               | 104                                  | 4.25                                            | 0.118758                  | -0.16                                                      | 0.006090                                |
| <180 days SITA                                                                                 | 89,300                              | 237,149.86                           | 969.98                            | 2.66                               | 108                                  | 4.56                                            | 0.121003                  | 0.15                                                       | 0.008335                                |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, ≥65 Years</b>                       |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 45,257                              | 162,955.94                           | 1,315.15                          | 3.60                               | 129                                  | 7.92                                            | 0.285039                  | 0.54                                                       | 0.069199                                |
| ≥180 days SITA                                                                                 | 391,957                             | 1,147,665.72                         | 1,069.47                          | 2.93                               | 846                                  | 7.37                                            | 0.215840                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 33,273                              | 112,800.73                           | 1,238.26                          | 3.39                               | 97                                   | 8.60                                            | 0.291528                  | 1.23                                                       | 0.075688                                |
| <180 days SITA                                                                                 | 228,770                             | 696,747.16                           | 1,112.41                          | 3.05                               | 554                                  | 7.95                                            | 0.242165                  | 0.58                                                       | 0.026325                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 66,867                              | 240,127.53                           | 1,311.65                          | 3.59                               | 190                                  | 7.91                                            | 0.283995                  | -0.54                                                      | 0.004007                                |
| ≥180 days SITA                                                                                 | 66,840                              | 221,443.13                           | 1,210.08                          | 3.31                               | 187                                  | 8.45                                            | 0.279987                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 62,530                              | 216,342.13                           | 1,263.70                          | 3.46                               | 192                                  | 8.86                                            | 0.306538                  | 0.41                                                       | 0.026551                                |
| <180 days SITA                                                                                 | 66,492                              | 231,583.32                           | 1,272.12                          | 3.48                               | 181                                  | 7.82                                            | 0.272475                  | -0.63                                                      | -0.007513                               |



**Table 2c. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Age**

|                                                                                                         | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|---------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Sensitivity for Subgroup ≥65 Years: Excluding 1 Data Partner with 0 events in a Cohort</b>           |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, ≥65 Years</b>                                |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                              |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 7.94                                            | 0.287524                  | 0.55                                                       | 0.070990                                |
| ≥180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 7.39                                            | 0.216534                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.60                                            | 0.293183                  | 1.21                                                       | 0.076649                                |
| <180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 7.98                                            | 0.243243                  | 0.59                                                       | 0.026708                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>          |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 7.94                                            | 0.286633                  | -0.60                                                      | 0.002457                                |
| ≥180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.54                                            | 0.284176                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.82                                            | 0.306817                  | 0.28                                                       | 0.022641                                |
| <180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 7.89                                            | 0.276421                  | -0.64                                                      | -0.007756                               |
| <b>Sensitivity for Subgroup ≥65 Years: Excluding 3 Data Partners with 1 or Fewer Events in a Cohort</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, ≥65 Years</b>                                |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                              |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.05                                            | 0.295110                  | 0.57                                                       | 0.071486                                |
| ≥180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 7.48                                            | 0.223624                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.59                                            | 0.296103                  | 1.11                                                       | 0.072479                                |
| <180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.05                                            | 0.250433                  | 0.57                                                       | 0.026809                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>          |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.04                                            | 0.293134                  | -0.38                                                      | 0.010423                                |
| ≥180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.41                                            | 0.282710                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 8.81                                            | 0.309449                  | 0.40                                                       | 0.026739                                |
| <180 days SITA                                                                                          | *****                               | *****                                | *****                             | *****                              | *****                                | 7.74                                            | 0.273256                  | -0.68                                                      | -0.009454                               |

**Table 2c. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Age**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, &lt;65 Years</b>                    |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.70 (0.51, 0.97)                            | 0.031        | 0.70 (0.51, 0.97)                            | 0.031        | 0.80 (0.61, 1.07)                               | 0.128        | 0.80 (0.61, 1.07)                            | 0.128        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.87 (0.60, 1.25)                            | 0.447        | 0.87 (0.60, 1.25)                            | 0.445        | 0.95 (0.69, 1.31)                               | 0.75         | 0.95 (0.69, 1.31)                            | 0.75         |
| <180 days SITA                                                                                 | 0.91 (0.64, 1.31)                            | 0.625        | 1.00 (0.86, 1.16)                            | 0.992        | 0.95 (0.69, 1.30)                               | 0.744        | 1.00 (0.83, 1.21)                            | 0.962        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.70 (0.50, 0.98)                            | 0.039        | 0.70 (0.50, 0.98)                            | 0.039        | 0.79 (0.58, 1.07)                               | 0.134        | 0.79 (0.58, 1.07)                            | 0.134        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.87 (0.59, 1.29)                            | 0.488        | 0.87 (0.59, 1.29)                            | 0.488        | 0.98 (0.69, 1.39)                               | 0.908        | 0.98 (0.69, 1.39)                            | 0.908        |
| <180 days SITA                                                                                 | 0.92 (0.55, 1.53)                            | 0.751        | 1.09 (0.85, 1.38)                            | 0.501        | 0.98 (0.63, 1.51)                               | 0.916        | 1.06 (0.82, 1.38)                            | 0.651        |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, ≥65 Years</b>                       |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.74 (0.25, 2.24)                            | 0.599        | 1.04 (0.86, 1.27)                            | 0.668        | 17.15 (1.57, 187.09)                            | 0.02         | 1.18 (0.98, 1.43)                            | 0.076        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.57 (0.15, 2.26)                            | 0.427        | 1.12 (0.90, 1.39)                            | 0.32         | 2.06 (0.08, 50.53)                              | 0.658        | 1.15 (0.93, 1.42)                            | 0.185        |
| <180 days SITA                                                                                 | 1.00 (0.82, 1.23)                            | 0.986        | 1.03 (0.95, 1.12)                            | 0.427        | 1.06 (0.95, 1.18)                               | 0.32         | 1.06 (0.95, 1.18)                            | 0.32         |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.67 (0.21, 2.13)                            | 0.496        | 0.93 (0.76, 1.14)                            | 0.464        | 18.21 (0.09, 3809.76)                           | 0.287        | 2.03 (1.67, 2.47)                            | <0.001       |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.51 (0.11, 2.35)                            | 0.389        | 1.03 (0.82, 1.30)                            | 0.793        | 1.88 (0.01, 442.24)                             | 0.821        | 1.74 (1.39, 2.17)                            | <0.001       |
| <180 days SITA                                                                                 | 0.88 (0.72, 1.07)                            | 0.197        | 0.90 (0.80, 1.02)                            | 0.106        | 0.94 (0.81, 1.09)                               | 0.404        | 0.94 (0.81, 1.09)                            | 0.404        |

**Table 2c. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Age**

|                                                                                                         | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                         | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                         | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Sensitivity for Subgroup ≥65 Years: Excluding 1 Data Partner with 0 events in a Cohort</b>           |                                              |              |                                              |              |                                                 |              |                                              |              |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, ≥65 Years</b>                                |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                              |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                          | 0.73 (0.30, 1.78)                            | 0.486        | 1.04 (0.86, 1.26)                            | 0.697        | 1.02 (0.70, 1.48)                               | 0.92         | 1.08 (0.89, 1.30)                            | 0.442        |
| ≥180 days SITA                                                                                          | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                          | 0.55 (0.16, 1.84)                            | 0.331        | 1.11 (0.89, 1.39)                            | 0.341        | 0.09 (0.01, 0.98)                               | 0.048        | 1.03 (0.83, 1.27)                            | 0.817        |
| <180 days SITA                                                                                          | 1.07 (0.89, 1.29)                            | 0.455        | 1.05 (0.97, 1.14)                            | 0.221        | 1.06 (0.95, 1.18)                               | 0.318        | 1.06 (0.95, 1.18)                            | 0.318        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>          |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                          | 0.65 (0.25, 1.65)                            | 0.359        | 0.92 (0.75, 1.13)                            | 0.437        | 0.89 (0.47, 1.69)                               | 0.73         | 0.96 (0.79, 1.17)                            | 0.672        |
| ≥180 days SITA                                                                                          | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                          | 0.46 (0.12, 1.81)                            | 0.268        | 1.03 (0.81, 1.30)                            | 0.83         | 0.07 (0.00, 1.04)                               | 0.054        | 0.89 (0.71, 1.11)                            | 0.304        |
| <180 days SITA                                                                                          | 0.93 (0.79, 1.09)                            | 0.387        | 0.93 (0.82, 1.06)                            | 0.292        | 0.94 (0.81, 1.09)                               | 0.401        | 0.94 (0.81, 1.09)                            | 0.401        |
| <b>Sensitivity for Subgroup ≥65 Years: Excluding 3 Data Partners with 1 or Fewer Events in a Cohort</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, ≥65 Years</b>                                |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                              |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                          | 0.83 (0.40, 1.76)                            | 0.634        | 1.04 (0.86, 1.27)                            | 0.665        | 1.07 (0.89, 1.29)                               | 0.46         | 1.07 (0.89, 1.29)                            | 0.46         |
| ≥180 days SITA                                                                                          | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                          | 0.88 (0.38, 2.02)                            | 0.759        | 1.13 (0.90, 1.40)                            | 0.289        | 1.14 (0.92, 1.41)                               | 0.233        | 1.14 (0.92, 1.41)                            | 0.233        |
| <180 days SITA                                                                                          | 1.05 (0.92, 1.21)                            | 0.467        | 1.05 (0.97, 1.13)                            | 0.268        | 1.05 (0.94, 1.17)                               | 0.374        | 1.05 (0.94, 1.17)                            | 0.374        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>          |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                          | 0.76 (0.36, 1.60)                            | 0.464        | 0.93 (0.76, 1.14)                            | 0.467        | 0.96 (0.78, 1.17)                               | 0.66         | 0.96 (0.78, 1.17)                            | 0.66         |
| ≥180 days SITA                                                                                          | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                          | 0.79 (0.32, 1.94)                            | 0.603        | 1.04 (0.82, 1.31)                            | 0.75         | 1.06 (0.84, 1.33)                               | 0.625        | 1.06 (0.84, 1.33)                            | 0.625        |
| <180 days SITA                                                                                          | 0.93 (0.81, 1.06)                            | 0.278        | 0.93 (0.81, 1.06)                            | 0.278        | 0.93 (0.80, 1.08)                               | 0.35         | 0.93 (0.80, 1.08)                            | 0.35         |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

\*\*\*\*\*Data are not presented in this cell due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 2d. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Obesity**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, No Obesity</b>                      |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 72,044                              | 225,933.43                           | 1,145.44                          | 3.14                               | 113                                  | 5.00                                            | 0.156849                  | -1.16                                                      | -0.013055                               |
| ≥180 days SITA                                                                                 | 483,804                             | 1,333,792.42                         | 1,006.95                          | 2.76                               | 822                                  | 6.16                                            | 0.169904                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 50,427                              | 151,577.95                           | 1,097.90                          | 3.01                               | 85                                   | 5.61                                            | 0.168560                  | -0.56                                                      | -0.001343                               |
| <180 days SITA                                                                                 | 285,319                             | 816,096.33                           | 1,044.72                          | 2.86                               | 516                                  | 6.32                                            | 0.180850                  | 0.16                                                       | 0.010947                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 102,373                             | 322,437.53                           | 1,150.40                          | 3.15                               | 162                                  | 5.03                                            | 0.158374                  | -1.26                                                      | -0.025524                               |
| ≥180 days SITA                                                                                 | 101,790                             | 297,686.13                           | 1,068.18                          | 2.92                               | 187                                  | 6.29                                            | 0.183898                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 96,413                              | 296,298.14                           | 1,122.49                          | 3.07                               | 175                                  | 5.91                                            | 0.181540                  | -0.38                                                      | -0.002358                               |
| <180 days SITA                                                                                 | 100,282                             | 306,269.74                           | 1,115.50                          | 3.05                               | 180                                  | 5.88                                            | 0.179477                  | -0.41                                                      | -0.004421                               |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Obesity</b>                         |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 39,224                              | 122,918.11                           | 1,144.60                          | 3.13                               | 80                                   | 6.51                                            | 0.203957                  | 0.56                                                       | 0.050501                                |
| ≥180 days SITA                                                                                 | 209,181                             | 539,286.91                           | 941.65                            | 2.58                               | 321                                  | 5.95                                            | 0.153456                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 27,960                              | 84,164.97                            | 1,099.47                          | 3.01                               | 59                                   | 7.01                                            | 0.211016                  | 1.06                                                       | 0.057560                                |
| <180 days SITA                                                                                 | 127,263                             | 339,334.25                           | 973.90                            | 2.67                               | 220                                  | 6.48                                            | 0.172870                  | 0.53                                                       | 0.019415                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 56,183                              | 176,369.30                           | 1,146.58                          | 3.14                               | 118                                  | 6.70                                            | 0.210331                  | 0.24                                                       | 0.029740                                |
| ≥180 days SITA                                                                                 | 55,764                              | 155,900.18                           | 1,021.14                          | 2.80                               | 101                                  | 6.46                                            | 0.180591                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 53,580                              | 164,659.69                           | 1,122.48                          | 3.07                               | 123                                  | 7.49                                            | 0.230242                  | 1.03                                                       | 0.049651                                |
| <180 days SITA                                                                                 | 54,768                              | 161,074.03                           | 1,074.22                          | 2.94                               | 108                                  | 6.69                                            | 0.196860                  | 0.23                                                       | 0.016270                                |

**Table 2d. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Obesity**

|                                                                                                            | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Sensitivity for Subgroup with Obesity: Excluding 1 Data Partner with 0 Events in a Cohort</b>           |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Obesity</b>                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                                 |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 6.90                                            | 0.219431                  | 1.01                                                       | 0.064945                                |
| ≥180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 5.89                                            | 0.154485                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.01                                            | 0.214387                  | 1.12                                                       | 0.059901                                |
| <180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 6.44                                            | 0.174870                  | 0.55                                                       | 0.020384                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>             |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.07                                            | 0.225006                  | 0.68                                                       | 0.043835                                |
| ≥180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 6.39                                            | 0.181171                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.47                                            | 0.232625                  | 1.08                                                       | 0.051453                                |
| <180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 6.59                                            | 0.196264                  | 0.20                                                       | 0.015092                                |
| <b>Sensitivity for Subgroup with Obesity: Excluding 3 Data Partners with 2 or Fewer Events in a Cohort</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Obesity</b>                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                                 |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.82                                            | 0.271972                  | 1.51                                                       | 0.098641                                |
| ≥180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 6.30                                            | 0.173331                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 8.06                                            | 0.267688                  | 1.76                                                       | 0.094357                                |
| <180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.17                                            | 0.204728                  | 0.87                                                       | 0.031397                                |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>             |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.98                                            | 0.276361                  | 0.90                                                       | 0.059783                                |
| ≥180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.08                                            | 0.216578                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 8.46                                            | 0.284767                  | 1.38                                                       | 0.068189                                |
| <180 days SITA                                                                                             | *****                               | *****                                | *****                             | *****                              | *****                                | 7.72                                            | 0.249100                  | 0.64                                                       | 0.032522                                |

**Table 2d. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Obesity**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, No Obesity</b>                      |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.77 (0.56, 1.06)                            | 0.106        | 0.81 (0.65, 1.01)                            | 0.059        | 0.86 (0.70, 1.05)                               | 0.144        | 0.86 (0.70, 1.05)                            | 0.144        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.89 (0.66, 1.20)                            | 0.461        | 0.90 (0.70, 1.16)                            | 0.429        | 0.96 (0.77, 1.21)                               | 0.741        | 0.96 (0.77, 1.21)                            | 0.741        |
| <180 days SITA                                                                                 | 0.91 (0.72, 1.15)                            | 0.417        | 1.00 (0.92, 1.09)                            | 0.919        | 0.96 (0.78, 1.19)                               | 0.728        | 1.02 (0.91, 1.14)                            | 0.789        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.77 (0.61, 0.96)                            | 0.023        | 0.77 (0.61, 0.96)                            | 0.023        | 0.81 (0.65, 1.00)                               | 0.05         | 0.81 (0.65, 1.00)                            | 0.05         |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.88 (0.68, 1.14)                            | 0.335        | 0.88 (0.68, 1.14)                            | 0.335        | 0.94 (0.74, 1.20)                               | 0.634        | 0.94 (0.74, 1.20)                            | 0.634        |
| <180 days SITA                                                                                 | 0.94 (0.80, 1.10)                            | 0.444        | 0.94 (0.82, 1.08)                            | 0.401        | 0.93 (0.80, 1.09)                               | 0.385        | 0.93 (0.80, 1.09)                            | 0.385        |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Obesity</b>                         |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.07 (0.00, 45.64)                           | 0.422        | 0.08 (0.06, 0.11)                            | <0.001       | 0.10 (0.00, 54.25)                              | 0.477        | 0.03 (0.03, 0.04)                            | <0.001       |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.63 (0.16, 2.54)                            | 0.52         | 1.24 (0.91, 1.68)                            | 0.166        | 1.26 (0.95, 1.67)                               | 0.103        | 1.26 (0.95, 1.67)                            | 0.103        |
| <180 days SITA                                                                                 | 1.16 (0.98, 1.38)                            | 0.079        | 1.15 (0.99, 1.34)                            | 0.061        | 1.12 (0.94, 1.33)                               | 0.209        | 1.12 (0.94, 1.33)                            | 0.209        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.05 (0.00, 47.30)                           | 0.397        | 0.07 (0.05, 0.09)                            | <0.001       | 0.07 (0.00, 44.79)                              | 0.427        | 0.05 (0.04, 0.06)                            | <0.001       |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.63 (0.15, 2.57)                            | 0.517        | 1.15 (0.82, 1.63)                            | 0.418        | 1.19 (0.88, 1.62)                               | 0.257        | 1.19 (0.88, 1.62)                            | 0.257        |
| <180 days SITA                                                                                 | 1.13 (0.90, 1.42)                            | 0.299        | 1.13 (0.90, 1.42)                            | 0.299        | 1.11 (0.88, 1.42)                               | 0.376        | 1.11 (0.88, 1.42)                            | 0.376        |

**Table 2d. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type and Obesity**

|                                                                                                            | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                            | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                            | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Sensitivity for Subgroup with Obesity: Excluding 1 Data Partner with 0 Events in a Cohort</b>           |                                              |              |                                              |              |                                                 |              |                                              |              |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Obesity</b>                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                                 |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                             | 1.10 (0.66, 1.83)                            | 0.715        | 1.17 (0.89, 1.53)                            | 0.276        | 1.20 (0.93, 1.54)                               | 0.154        | 1.20 (0.93, 1.54)                            | 0.154        |
| ≥180 days SITA                                                                                             | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                             | 0.81 (0.23, 2.85)                            | 0.737        | 1.25 (0.92, 1.70)                            | 0.147        | 1.27 (0.95, 1.70)                               | 0.102        | 1.27 (0.95, 1.70)                            | 0.102        |
| <180 days SITA                                                                                             | 1.20 (0.95, 1.51)                            | 0.129        | 1.16 (0.99, 1.36)                            | 0.063        | 1.12 (0.94, 1.34)                               | 0.217        | 1.12 (0.94, 1.34)                            | 0.217        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>             |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                             | 1.09 (0.63, 1.89)                            | 0.746        | 1.09 (0.80, 1.48)                            | 0.575        | 1.09 (0.83, 1.44)                               | 0.538        | 1.09 (0.83, 1.44)                            | 0.538        |
| ≥180 days SITA                                                                                             | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                             | 0.79 (0.22, 2.82)                            | 0.718        | 1.17 (0.83, 1.65)                            | 0.38         | 1.20 (0.87, 1.64)                               | 0.26         | 1.20 (0.87, 1.64)                            | 0.26         |
| <180 days SITA                                                                                             | 1.17 (0.86, 1.60)                            | 0.317        | 1.14 (0.90, 1.45)                            | 0.287        | 1.11 (0.87, 1.42)                               | 0.402        | 1.11 (0.87, 1.42)                            | 0.402        |
| <b>Sensitivity for Subgroup with Obesity: Excluding 3 Data Partners with 2 or Fewer Events in a Cohort</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| <b>Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Obesity</b>                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| <i>Site-Adjusted Analysis (Unweighted)</i>                                                                 |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                             | 1.17 (0.89, 1.54)                            | 0.274        | 1.17 (0.89, 1.54)                            | 0.274        | 1.21 (0.94, 1.56)                               | 0.146        | 1.21 (0.94, 1.56)                            | 0.146        |
| ≥180 days SITA                                                                                             | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                             | 0.90 (0.33, 2.47)                            | 0.835        | 1.26 (0.92, 1.71)                            | 0.144        | 1.21 (0.82, 1.78)                               | 0.335        | 1.28 (0.95, 1.72)                            | 0.11         |
| <180 days SITA                                                                                             | 1.16 (0.99, 1.36)                            | 0.058        | 1.16 (0.99, 1.36)                            | 0.058        | 1.14 (0.95, 1.37)                               | 0.154        | 1.14 (0.95, 1.37)                            | 0.154        |
| <i>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</i>             |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                             | 1.09 (0.81, 1.48)                            | 0.569        | 1.09 (0.81, 1.48)                            | 0.569        | 1.12 (0.84, 1.48)                               | 0.447        | 1.12 (0.84, 1.48)                            | 0.447        |
| ≥180 days SITA                                                                                             | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                             | 0.90 (0.34, 2.34)                            | 0.827        | 1.17 (0.83, 1.65)                            | 0.372        | 1.22 (0.88, 1.69)                               | 0.234        | 1.22 (0.88, 1.69)                            | 0.234        |
| <180 days SITA                                                                                             | 1.15 (0.90, 1.45)                            | 0.265        | 1.15 (0.90, 1.45)                            | 0.265        | 1.14 (0.89, 1.46)                               | 0.304        | 1.14 (0.89, 1.46)                            | 0.304        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

\*\*\*\*\*Data are not presented in this cell due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 3. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Broad Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 111,306                             | 348,762.97                           | 1,144.46                          | 3.13                               | 273                                  | 7.83                                            | 0.245270                  | -0.76                                                      | 0.013340                                |
| ≥180 days SITA                                                                                 | 693,745                             | 1,873,243.88                         | 986.24                            | 2.70                               | 1,609                                | 8.59                                            | 0.231930                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 78,408                              | 235,658.44                           | 1,097.77                          | 3.01                               | 207                                  | 8.78                                            | 0.264004                  | 0.19                                                       | 0.032074                                |
| <180 days SITA                                                                                 | 413,107                             | 1,155,685.45                         | 1,021.80                          | 2.80                               | 1,001                                | 8.66                                            | 0.242310                  | 0.07                                                       | 0.010381                                |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 158,630                             | 498,579.65                           | 1,148.00                          | 3.14                               | 397                                  | 7.96                                            | 0.250334                  | -0.44                                                      | 0.008308                                |
| ≥180 days SITA                                                                                 | 157,577                             | 453,514.88                           | 1,051.21                          | 2.88                               | 381                                  | 8.41                                            | 0.242026                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 150,198                             | 461,145.94                           | 1,121.41                          | 3.07                               | 423                                  | 9.17                                            | 0.281499                  | 0.76                                                       | 0.039473                                |
| <180 days SITA                                                                                 | 155,074                             | 467,132.48                           | 1,100.25                          | 3.01                               | 392                                  | 8.39                                            | 0.252745                  | -0.02                                                      | 0.010719                                |



**Table 3. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Broad Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.88 (0.73, 1.07)                            | 0.206        | 0.93 (0.81, 1.07)                            | 0.313        | 0.96 (0.84, 1.09)                               | 0.533        | 0.96 (0.84, 1.09)                            | 0.533        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 1.04 (0.89, 1.21)                            | 0.66         | 1.04 (0.89, 1.21)                            | 0.66         | 1.08 (0.93, 1.25)                               | 0.299        | 1.08 (0.93, 1.25)                            | 0.299        |
| <180 days SITA                                                                                 | 0.91 (0.77, 1.09)                            | 0.314        | 0.99 (0.93, 1.05)                            | 0.703        | 0.94 (0.80, 1.12)                               | 0.496        | 1.01 (0.93, 1.09)                            | 0.902        |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.93 (0.81, 1.07)                            | 0.336        | 0.93 (0.81, 1.07)                            | 0.336        | 0.95 (0.82, 1.09)                               | 0.446        | 0.95 (0.82, 1.09)                            | 0.446        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 1.07 (0.90, 1.26)                            | 0.449        | 1.07 (0.90, 1.26)                            | 0.449        | 1.11 (0.95, 1.30)                               | 0.192        | 1.11 (0.95, 1.30)                            | 0.192        |
| <180 days SITA                                                                                 | 0.98 (0.78, 1.23)                            | 0.839        | 1.03 (0.93, 1.15)                            | 0.528        | 0.98 (0.79, 1.23)                               | 0.888        | 1.02 (0.91, 1.14)                            | 0.789        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 4. Effect Estimates for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days SGLT-2i                                                                              | 834,502                             | 1,669,326.93                         | 730.64                            | 2.00                               | 956                                  | 5.73                                            | 0.114559                  | -0.36                                                      | -0.050169                               |
| ≥180 days SITA                                                                                 | 690,229                             | 1,868,212.26                         | 988.61                            | 2.71                               | 1,137                                | 6.09                                            | 0.164728                  | Ref.                                                       | Ref.                                    |
| <180 days SGLT-2i                                                                              | 490,085                             | 1,014,091.97                         | 755.78                            | 2.07                               | 601                                  | 5.93                                            | 0.122632                  | -0.16                                                      | -0.042096                               |
| <180 days SITA                                                                                 | 410,516                             | 1,151,814.55                         | 1,024.81                          | 2.81                               | 732                                  | 6.36                                            | 0.178312                  | 0.27                                                       | 0.013584                                |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days SGLT-2i                                                                              | 1,048,523                           | 2,126,558.27                         | 740.78                            | 2.03                               | 1,219                                | 5.73                                            | 0.116261                  | -0.44                                                      | -0.015597                               |
| ≥180 days SITA                                                                                 | 1,019,114                           | 2,176,969.95                         | 780.23                            | 2.14                               | 1,344                                | 6.17                                            | 0.131858                  | Ref.                                                       | Ref.                                    |
| <180 days SGLT-2i                                                                              | 1,053,646                           | 2,223,506.88                         | 770.79                            | 2.11                               | 1,385                                | 6.23                                            | 0.131407                  | 0.05                                                       | -0.000452                               |
| <180 days SITA                                                                                 | 953,130                             | 2,173,179.38                         | 832.79                            | 2.28                               | 1,311                                | 6.03                                            | 0.137503                  | -0.14                                                      | 0.005645                                |

**Table 4. Effect Estimates for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days SGLT-2i                                                                              | 0.99 (0.86, 1.14)                            | 0.917        | 1.00 (0.91, 1.09)                            | 0.977        | 0.99 (0.87, 1.13)                               | 0.877        | 1.00 (0.92, 1.09)                            | 0.977        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days SGLT-2i                                                                              | 1.00 (0.85, 1.17)                            | 0.996        | 1.03 (0.93, 1.14)                            | 0.562        | 1.01 (0.89, 1.15)                               | 0.821        | 1.03 (0.93, 1.14)                            | 0.551        |
| <180 days SITA                                                                                 | 0.98 (0.81, 1.19)                            | 0.839        | 1.05 (0.97, 1.13)                            | 0.251        | 1.01 (0.84, 1.21)                               | 0.893        | 1.05 (0.96, 1.15)                            | 0.307        |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days SGLT-2i                                                                              | 0.93 (0.83, 1.04)                            | 0.223        | 0.93 (0.83, 1.04)                            | 0.223        | 0.93 (0.84, 1.04)                               | 0.201        | 0.93 (0.84, 1.04)                            | 0.201        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days SGLT-2i                                                                              | 1.01 (0.89, 1.15)                            | 0.868        | 1.01 (0.89, 1.15)                            | 0.868        | 1.01 (0.89, 1.14)                               | 0.93         | 1.01 (0.89, 1.14)                            | 0.93         |
| <180 days SITA                                                                                 | 0.94 (0.75, 1.17)                            | 0.562        | 0.95 (0.84, 1.08)                            | 0.427        | 0.97 (0.81, 1.16)                               | 0.706        | 0.96 (0.84, 1.11)                            | 0.621        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

**Abbreviations:** SGLT-2i = sodium-glucose cotransporter-2 inhibitors; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 5. Effect Estimates for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin: Broad Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days SGLT-2i                                                                              | 834,537                             | 1,668,670.79                         | 730.32                            | 2.00                               | 1,445                                | 8.66                                            | 0.173150                  | 0.10                                                       | -0.058499                               |
| ≥180 days SITA                                                                                 | 690,269                             | 1,867,305.59                         | 988.07                            | 2.71                               | 1,599                                | 8.56                                            | 0.231649                  | Ref.                                                       | Ref.                                    |
| <180 days SGLT-2i                                                                              | 490,164                             | 1,013,749.57                         | 755.40                            | 2.07                               | 901                                  | 8.89                                            | 0.183816                  | 0.32                                                       | -0.047833                               |
| <180 days SITA                                                                                 | 410,583                             | 1,151,361.88                         | 1,024.24                          | 2.80                               | 993                                  | 8.62                                            | 0.241851                  | 0.06                                                       | 0.010202                                |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days SGLT-2i                                                                              | 1,048,523                           | 2,125,624.24                         | 740.46                            | 2.03                               | 1,838                                | 8.65                                            | 0.175335                  | -0.29                                                      | -0.015499                               |
| ≥180 days SITA                                                                                 | 1,019,120                           | 2,176,142.82                         | 779.92                            | 2.14                               | 1,945                                | 8.94                                            | 0.190834                  | Ref.                                                       | Ref.                                    |
| <180 days SGLT-2i                                                                              | 1,053,644                           | 2,222,480.89                         | 770.43                            | 2.11                               | 2,056                                | 9.25                                            | 0.195142                  | 0.31                                                       | 0.004307                                |
| <180 days SITA                                                                                 | 953,152                             | 2,172,309.47                         | 832.43                            | 2.28                               | 1,869                                | 8.60                                            | 0.196066                  | -0.33                                                      | 0.005232                                |

**Table 5. Effect Estimates for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin: Broad Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days SGLT-2i                                                                              | 1.03 (0.89, 1.20)                            | 0.699        | 1.05 (0.98, 1.13)                            | 0.172        | 1.02 (0.89, 1.18)                               | 0.73         | 1.06 (0.98, 1.14)                            | 0.144        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days SGLT-2i                                                                              | 1.02 (0.84, 1.24)                            | 0.828        | 1.09 (1.00, 1.18)                            | 0.048        | 1.02 (0.86, 1.21)                               | 0.837        | 1.09 (1.00, 1.18)                            | 0.058        |
| <180 days SITA                                                                                 | 0.91 (0.76, 1.11)                            | 0.358        | 1.00 (0.94, 1.06)                            | 0.903        | 0.95 (0.80, 1.13)                               | 0.569        | 1.01 (0.93, 1.09)                            | 0.808        |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days SGLT-2i                                                                              | 0.91 (0.77, 1.09)                            | 0.304        | 0.95 (0.87, 1.04)                            | 0.296        | 0.91 (0.78, 1.07)                               | 0.259        | 0.96 (0.88, 1.05)                            | 0.345        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days SGLT-2i                                                                              | 0.95 (0.77, 1.17)                            | 0.608        | 1.04 (0.94, 1.16)                            | 0.417        | 0.95 (0.79, 1.15)                               | 0.602        | 1.03 (0.93, 1.15)                            | 0.547        |
| <180 days SITA                                                                                 | 0.90 (0.76, 1.07)                            | 0.217        | 0.95 (0.86, 1.05)                            | 0.342        | 0.95 (0.83, 1.09)                               | 0.491        | 0.97 (0.86, 1.09)                            | 0.579        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

**Abbreviations:** SGLT-2i = sodium-glucose cotransporter-2 inhibitors; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 6. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC), Censoring at Non-Renal Cell Carcinoma (RCC) Malignancy\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 117,780                             | 274,226.04                           | 850.41                            | 2.33                               | 97                                   | 3.54                                            | 0.082357                  | -0.22                                                      | 0.007997                                |
| ≥180 days SITA                                                                                 | 730,231                             | 1,444,847.23                         | 722.69                            | 1.98                               | 543                                  | 3.76                                            | 0.074360                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 87,729                              | 190,211.76                           | 791.93                            | 2.17                               | 74                                   | 3.89                                            | 0.084351                  | 0.13                                                       | 0.009991                                |
| <180 days SITA                                                                                 | 486,603                             | 922,270.35                           | 692.27                            | 1.90                               | 372                                  | 4.03                                            | 0.076448                  | 0.28                                                       | 0.002088                                |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 158,662                             | 383,145.63                           | 882.02                            | 2.41                               | 135                                  | 3.52                                            | 0.085068                  | -0.54                                                      | -0.006065                               |
| ≥180 days SITA                                                                                 | 157,624                             | 353,590.86                           | 819.35                            | 2.24                               | 144                                  | 4.06                                            | 0.091133                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 151,156                             | 357,310.27                           | 863.40                            | 2.36                               | 145                                  | 4.06                                            | 0.096045                  | 0.00                                                       | 0.004913                                |
| <180 days SITA                                                                                 | 155,394                             | 362,146.47                           | 851.22                            | 2.33                               | 134                                  | 3.71                                            | 0.086357                  | -0.36                                                      | -0.004776                               |

**Table 6. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC), Censoring at Non-Renal Cell Carcinoma (RCC) Malignancy\* in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.87 (0.61, 1.25)                            | 0.461        | 0.96 (0.76, 1.21)                            | 0.725        | 1.00 (0.80, 1.25)                               | 0.99         | 1.00 (0.80, 1.25)                            | 0.99         |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.95 (0.55, 1.63)                            | 0.85         | 1.00 (0.76, 1.32)                            | 0.986        | 1.09 (0.85, 1.41)                               | 0.488        | 1.09 (0.85, 1.41)                            | 0.479        |
| <180 days SITA                                                                                 | 0.96 (0.74, 1.24)                            | 0.747        | 1.05 (0.95, 1.16)                            | 0.368        | 1.03 (0.82, 1.28)                               | 0.82         | 1.06 (0.93, 1.21)                            | 0.404        |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.87 (0.68, 1.12)                            | 0.289        | 0.87 (0.68, 1.12)                            | 0.289        | 0.89 (0.70, 1.13)                               | 0.352        | 0.89 (0.70, 1.13)                            | 0.352        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.92 (0.59, 1.45)                            | 0.723        | 0.96 (0.71, 1.30)                            | 0.79         | 1.02 (0.78, 1.34)                               | 0.89         | 1.02 (0.78, 1.34)                            | 0.89         |
| <180 days SITA                                                                                 | 0.76 (0.47, 1.23)                            | 0.257        | 0.95 (0.80, 1.12)                            | 0.516        | 0.79 (0.50, 1.24)                               | 0.305        | 0.95 (0.79, 1.15)                            | 0.599        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

\*Excludes non-melanoma skin cancers

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 7. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC), Censoring at Glucagon-Like Peptide-1 Receptor Agonist (GLP-1RA) or Insulin Initiation in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Number of<br>New Users <sup>a</sup> | Person Years<br>at Risk <sup>a</sup> | Average Person<br>Days<br>at Risk | Average Person<br>Years<br>at Risk | Number of RCC<br>Events <sup>a</sup> | Incidence<br>Rate per<br>10,000<br>Person Years | Risk per 100<br>New Users | Incidence Rate<br>Difference per<br>10,000<br>Person Years | Risk Difference<br>per 100<br>New Users |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|---------------------------|------------------------------------------------------------|-----------------------------------------|
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 118,519                             | 268,335.92                           | 826.95                            | 2.26                               | 144                                  | 5.37                                            | 0.121500                  | -0.44                                                      | 0.000473                                |
| ≥180 days SITA                                                                                 | 727,942                             | 1,517,544.65                         | 761.44                            | 2.08                               | 881                                  | 5.81                                            | 0.121026                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 83,508                              | 178,702.48                           | 781.61                            | 2.14                               | 95                                   | 5.32                                            | 0.113762                  | -0.49                                                      | -0.007265                               |
| <180 days SITA                                                                                 | 446,016                             | 942,559.96                           | 771.88                            | 2.11                               | 583                                  | 6.19                                            | 0.130713                  | 0.38                                                       | 0.009687                                |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                     |                                      |                                   |                                    |                                      |                                                 |                           |                                                            |                                         |
| ≥180 days CANA                                                                                 | 158,775                             | 365,148.56                           | 840.00                            | 2.30                               | 200                                  | 5.48                                            | 0.126007                  | -0.64                                                      | -0.009411                               |
| ≥180 days SITA                                                                                 | 157,629                             | 349,030.00                           | 808.75                            | 2.21                               | 213                                  | 6.12                                            | 0.135419                  | Ref.                                                       | Ref.                                    |
| <180 days CANA                                                                                 | 150,418                             | 336,578.91                           | 817.29                            | 2.24                               | 183                                  | 5.45                                            | 0.121906                  | -0.67                                                      | -0.013513                               |
| <180 days SITA                                                                                 | 155,552                             | 364,638.74                           | 856.20                            | 2.34                               | 222                                  | 6.09                                            | 0.142687                  | -0.03                                                      | 0.007269                                |



**Table 7. Effect Estimates for Initiators of Canagliflozin vs Sitagliptin: Narrow Renal Cell Carcinoma (RCC), Censoring at Glucagon-Like Peptide-1 Receptor Agonist (GLP-1RA) or Insulin Initiation in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                                                | Bootstrapping                                |              |                                              |              | Sensitivity: Model-Based Robust Standard Errors |              |                                              |              |
|------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------------------------------------|--------------|-------------------------------------------------|--------------|----------------------------------------------|--------------|
|                                                                                                | Random Effects Model                         |              | Fixed Effects Model                          |              | Random Effects Model                            |              | Fixed Effects Model                          |              |
|                                                                                                | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval)    | Wald P-Value | Hazard Ratio<br>(95% Confidence<br>Interval) | Wald P-Value |
| <b>Site-Adjusted Analysis (Unweighted)</b>                                                     |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.79 (0.52, 1.19)                            | 0.253        | 0.98 (0.82, 1.19)                            | 0.859        | 0.88 (0.66, 1.19)                               | 0.421        | 0.99 (0.83, 1.18)                            | 0.908        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.91 (0.60, 1.38)                            | 0.664        | 0.96 (0.75, 1.22)                            | 0.743        | 0.97 (0.68, 1.37)                               | 0.853        | 1.01 (0.81, 1.25)                            | 0.948        |
| <180 days SITA                                                                                 | 1.02 (0.87, 1.19)                            | 0.821        | 1.05 (0.98, 1.14)                            | 0.169        | 1.07 (0.96, 1.19)                               | 0.244        | 1.07 (0.96, 1.19)                            | 0.244        |
| <b>Inverse Probability of Treatment and Censoring-Weighted Analysis (1% Weight Truncation)</b> |                                              |              |                                              |              |                                                 |              |                                              |              |
| ≥180 days CANA                                                                                 | 0.74 (0.50, 1.11)                            | 0.149        | 0.92 (0.75, 1.13)                            | 0.413        | 0.85 (0.65, 1.12)                               | 0.262        | 0.93 (0.77, 1.13)                            | 0.453        |
| ≥180 days SITA                                                                                 | Ref.                                         | N/A          | Ref.                                         | N/A          | Ref.                                            | N/A          | Ref.                                         | N/A          |
| <180 days CANA                                                                                 | 0.81 (0.51, 1.29)                            | 0.38         | 0.92 (0.71, 1.18)                            | 0.501        | 0.94 (0.72, 1.23)                               | 0.672        | 0.96 (0.76, 1.21)                            | 0.714        |
| <180 days SITA                                                                                 | 1.03 (0.89, 1.18)                            | 0.707        | 1.03 (0.89, 1.18)                            | 0.707        | 1.03 (0.89, 1.20)                               | 0.713        | 1.03 (0.89, 1.20)                            | 0.713        |

<sup>a</sup>Numbers do not correspond to all initiators since clones that experience events or are lost to follow-up before being assigned to a treatment strategy are included in both treatment strategies.

\* Post-index GLP1-RA initiation is defined as any new use, as pre-index use is an exclusion criterion. Post-index insulin initiation is defined as first use in 365 days.

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; GLP-1RA = glucagon-like peptide-1 receptor agonist; RCC = renal cell carcinoma; Ref. = reference group; N/A = not applicable.

**Table 8. Effect Estimates for Initiators of Canagliflozin with and without At Least 180 Days Exposure as of Day 360: Narrow Renal Cell Carcinoma (RCC) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, by Analysis Type**

|                                                                    | Model-based robust standard errors        |              |                                           |              |
|--------------------------------------------------------------------|-------------------------------------------|--------------|-------------------------------------------|--------------|
|                                                                    | Random effects model                      |              | Fixed effects model                       |              |
|                                                                    | Hazard Ratio<br>(95% Confidence Interval) | Wald P-Value | Hazard Ratio<br>(95% Confidence Interval) | Wald P-Value |
| Site-Adjusted Analysis (Unweighted)                                |                                           |              |                                           |              |
| ≥180 days CANA                                                     | 0.90 (0.73, 1.12)                         | 0.361        | 0.90 (0.73, 1.12)                         | 0.361        |
| <180 days CANA                                                     | Ref.                                      | N/A          | Ref.                                      | N/A          |
| Inverse Probability of Censoring-Weighted Analysis                 |                                           |              |                                           |              |
| ≥180 days CANA                                                     | 0.86 (0.67, 1.10)                         | 0.236        | 0.86 (0.69, 1.08)                         | 0.189        |
| <180 days CANA                                                     | Ref.                                      | N/A          | Ref.                                      | N/A          |
| Inverse Probability of Censoring-Weighted Analysis (1% Truncation) |                                           |              |                                           |              |
| ≥180 days CANA                                                     | 0.86 (0.68, 1.07)                         | 0.173        | 0.86 (0.68, 1.07)                         | 0.173        |
| <180 days CANA                                                     | Ref.                                      | N/A          | Ref.                                      | N/A          |

**Abbreviations:** CANA = canagliflozin; Ref. = reference group; N/A = not applicable.

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                            | Initiators of Canagliflozin vs Sitagliptin: Narrow RCC |             |             |             |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|-------------|-------------|
|                                                                                            | Canagliflozin                                          |             | Sitagliptin |             |
|                                                                                            | Remaining                                              | Excluded    | Remaining   | Excluded    |
| <b>Members Meeting Enrollment and Demographic Requirements</b>                             |                                                        |             |             |             |
| Enrolled at any point during the query period                                              | 450,322,417                                            | N/A         | 450,322,417 | N/A         |
| Had required coverage type (medical and/or drug coverage)                                  | 335,091,717                                            | 115,230,700 | 335,091,717 | 115,230,700 |
| Enrolled during specified age range                                                        | 269,432,996                                            | 65,658,721  | 269,432,996 | 65,658,721  |
| Had requestable medical charts                                                             | 269,432,996                                            | 0           | 269,432,996 | 0           |
| Met demographic requirements (sex, race, and Hispanic origin)                              | 269,305,841                                            | 127,155     | 269,305,841 | 127,155     |
| <b>Members with a Valid Index Event</b>                                                    |                                                        |             |             |             |
| Had any cohort-defining claim during the query period                                      | 873,356                                                | 268,432,485 | 4,072,616   | 265,233,225 |
| Claim recorded during specified age range                                                  | 873,114                                                | 242         | 4,072,053   | 563         |
| Episode defining index claim recorded during the query period                              | 873,114                                                | 0           | 4,072,053   | 0           |
| <b>Members with Required Pre-index History</b>                                             |                                                        |             |             |             |
| Had sufficient pre-index continuous enrollment                                             | 687,044                                                | 186,070     | 3,227,176   | 844,877     |
| Met inclusion and exclusion criteria <sup>1</sup>                                          | 161,970                                                | 525,074     | 925,058     | 2,302,118   |
| Inclusion of T2DM diagnosis                                                                | N/A                                                    | 141,074     | N/A         | 805,998     |
| Exclusion of T1DM diagnosis                                                                | N/A                                                    | 87,188      | N/A         | 384,060     |
| Exclusion of 2 broad RCC diagnosis codes                                                   | N/A                                                    | 3,074       | N/A         | 24,891      |
| Exclusion of kidney cancer history or acquired absence of kidney                           | N/A                                                    | 4,484       | N/A         | 37,007      |
| Exclusion of chronic kidney disease (stages III-V) or dialysis                             | N/A                                                    | 79,922      | N/A         | 703,954     |
| Other drug-based exclusions:                                                               |                                                        |             |             |             |
| CANA washout (-365, -1)                                                                    | N/A                                                    | 461,476     | N/A         | N/A         |
| Other drug use exclusions for CANA initiators: other SGLT-2is, DPP-4is, GLP-1RAs (-365, 0) | N/A                                                    | 386,798     | N/A         | N/A         |
| SITA washout (-365, -1)                                                                    | N/A                                                    | N/A         | N/A         | 2,127,518   |
| Other drug use exclusions for SITA initiators: other DPP-4is, SGLT-2is, GLP-1RAs (-365, 0) | N/A                                                    | N/A         | N/A         | 908,336     |
| SGLT-2i washout (-365, -1)                                                                 | N/A                                                    | N/A         | N/A         | N/A         |
| Other drug use exclusions for SGLT-2i initiators: DPP-4is, GLP-1RAs (-365, 0)              | N/A                                                    | N/A         | N/A         | N/A         |
| Met event incidence criteria                                                               | 161,970                                                | 0           | 925,058     | 0           |
| <b>Members with Required Post-Index Follow-Up</b>                                          |                                                        |             |             |             |
| Had sufficient post-index continuous enrollment                                            | 161,970                                                | 0           | 925,058     | 0           |
| Had index episode of at least required length                                              | 161,970                                                | 0           | 925,058     | 0           |
| Had index episode longer than blackout period                                              | 161,970                                                | 0           | 925,058     | 0           |
| Did not have an event during blackout period                                               | 161,970                                                | 0           | 925,058     | 0           |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                             | Initiators of Canagliflozin vs Sitagliptin: Narrow RCC |          |             |          |
|-----------------------------------------------------------------------------|--------------------------------------------------------|----------|-------------|----------|
|                                                                             | Canagliflozin                                          |          | Sitagliptin |          |
|                                                                             | Remaining                                              | Excluded | Remaining   | Excluded |
| <b>Final Cohort</b>                                                         |                                                        |          |             |          |
| Number of members                                                           | 161,970                                                | N/A      | 925,058     | N/A      |
| Number of episodes                                                          | 161,970                                                | N/A      | 925,058     | N/A      |
| <b>Members Meeting Comparative Cohort Eligibility Requirements</b>          |                                                        |          |             |          |
| Excluded due to ineligibility for comparative analysis <sup>2</sup>         | 159,011                                                | 2,959    | 921,012     | 4,046    |
| Included in comparative analysis                                            | 159,011                                                | 0        | 921,012     | 0        |
| <b>Additional Information</b>                                               |                                                        |          |             |          |
| Number of events in comparative analysis                                    | 292                                                    | N/A      | 1,517       | N/A      |
| Number of patients with a truncated inverse probability of treatment weight | 0                                                      | N/A      | 13,322      | N/A      |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                            | Initiators of Canagliflozin vs Sitagliptin: Broad RCC |             |             |             |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------|-------------|-------------|
|                                                                                            | Canagliflozin                                         |             | Sitagliptin |             |
|                                                                                            | Remaining                                             | Excluded    | Remaining   | Excluded    |
| <b>Members Meeting Enrollment and Demographic Requirements</b>                             |                                                       |             |             |             |
| Enrolled at any point during the query period                                              | 450,322,417                                           | N/A         | 450,322,417 | N/A         |
| Had required coverage type (medical and/or drug coverage)                                  | 335,091,717                                           | 115,230,700 | 335,091,717 | 115,230,700 |
| Enrolled during specified age range                                                        | 269,432,996                                           | 65,658,721  | 269,432,996 | 65,658,721  |
| Had requestable medical charts                                                             | 269,432,996                                           | 0           | 269,432,996 | 0           |
| Met demographic requirements (sex, race, and Hispanic origin)                              | 269,305,841                                           | 127,155     | 269,305,841 | 127,155     |
| <b>Members with a Valid Index Event</b>                                                    |                                                       |             |             |             |
| Had any cohort-defining claim during the query period                                      | 873,356                                               | 268,432,485 | 4,072,616   | 265,233,225 |
| Claim recorded during specified age range                                                  | 873,114                                               | 242         | 4,072,053   | 563         |
| Episode defining index claim recorded during the query period                              | 873,114                                               | 0           | 4,072,053   | 0           |
| <b>Members with Required Pre-index History</b>                                             |                                                       |             |             |             |
| Had sufficient pre-index continuous enrollment                                             | 687,044                                               | 186,070     | 3,227,176   | 844,877     |
| Met inclusion and exclusion criteria <sup>1</sup>                                          | 161,970                                               | 525,074     | 925,058     | 2,302,118   |
| Inclusion of T2DM diagnosis                                                                | N/A                                                   | 141,074     | N/A         | 805,998     |
| Exclusion of T1DM diagnosis                                                                | N/A                                                   | 87,188      | N/A         | 384,060     |
| Exclusion of 2 broad RCC diagnosis codes                                                   | N/A                                                   | 3,074       | N/A         | 24,891      |
| Exclusion of kidney cancer history or acquired absence of kidney                           | N/A                                                   | 4,484       | N/A         | 37,007      |
| Exclusion of chronic kidney disease (stages III-V) or dialysis                             | N/A                                                   | 79,922      | N/A         | 703,954     |
| <i>Other drug-based exclusions:</i>                                                        |                                                       |             |             |             |
| CANA washout (-365, -1)                                                                    | N/A                                                   | 461,476     | N/A         | N/A         |
| Other drug use exclusions for CANA initiators: other SGLT-2is, DPP-4is, GLP-1RAs (-365, 0) | N/A                                                   | 386,798     | N/A         | N/A         |
| SITA washout (-365, -1)                                                                    | N/A                                                   | N/A         | N/A         | 2,127,518   |
| Other drug use exclusions for SITA initiators: other DPP-4is, SGLT-2is, GLP-1RAs (-365, 0) | N/A                                                   | N/A         | N/A         | 908,336     |
| SGLT-2i washout (-365, -1)                                                                 | N/A                                                   | N/A         | N/A         | N/A         |
| Other drug use exclusions for SGLT-2i initiators: DPP-4is, GLP-1RAs (-365, 0)              | N/A                                                   | N/A         | N/A         | N/A         |
| Met event incidence criteria                                                               | 161,970                                               | 0           | 925,058     | 0           |
| <b>Members with Required Post-Index Follow-Up</b>                                          |                                                       |             |             |             |
| Had sufficient post-index continuous enrollment                                            | 161,970                                               | 0           | 925,058     | 0           |
| Had index episode of at least required length                                              | 161,970                                               | 0           | 925,058     | 0           |
| Had index episode longer than blackout period                                              | 161,970                                               | 0           | 925,058     | 0           |
| Did not have an event during blackout period                                               | 161,970                                               | 0           | 925,058     | 0           |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                             | Initiators of Canagliflozin vs Sitagliptin: Broad RCC |          |             |          |
|-----------------------------------------------------------------------------|-------------------------------------------------------|----------|-------------|----------|
|                                                                             | Canagliflozin                                         |          | Sitagliptin |          |
|                                                                             | Remaining                                             | Excluded | Remaining   | Excluded |
| <b>Final Cohort</b>                                                         |                                                       |          |             |          |
| Number of members                                                           | 161,970                                               | N/A      | 925,058     | N/A      |
| Number of episodes                                                          | 161,970                                               | N/A      | 925,058     | N/A      |
| <b>Members Meeting Comparative Cohort Eligibility Requirements</b>          |                                                       |          |             |          |
| Excluded due to ineligibility for comparative analysis <sup>2</sup>         | 159,011                                               | 2,959    | 921,012     | 4,046    |
| Included in comparative analysis                                            | 159,011                                               | 0        | 921,012     | 0        |
| <b>Additional Information</b>                                               |                                                       |          |             |          |
| Number of events in comparative analysis                                    | 410                                                   | N/A      | 2,097       | N/A      |
| Number of patients with a truncated inverse probability of treatment weight | 0                                                     | N/A      | 13,322      | N/A      |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                                   | Initiators of Sitagliptin vs All SGLT-2 Inhibitors: Narrow RCC |             |                       |             |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------|-----------------------|-------------|
|                                                                                                   | Sitagliptin                                                    |             | All SGLT-2 Inhibitors |             |
|                                                                                                   | Remaining                                                      | Excluded    | Remaining             | Excluded    |
| <b>Members Meeting Enrollment and Demographic Requirements</b>                                    |                                                                |             |                       |             |
| Enrolled at any point during the query period                                                     | 450,322,417                                                    | N/A         | 450,322,417           | N/A         |
| Had required coverage type (medical and/or drug coverage)                                         | 335,091,717                                                    | 115,230,700 | 335,091,717           | 115,230,700 |
| Enrolled during specified age range                                                               | 269,432,996                                                    | 65,658,721  | 269,432,996           | 65,658,721  |
| Had requestable medical charts                                                                    | 269,432,996                                                    | 0           | 269,432,996           | 0           |
| Met demographic requirements (sex, race, and Hispanic origin)                                     | 269,305,841                                                    | 127,155     | 269,305,841           | 127,155     |
| <b>Members with a Valid Index Event</b>                                                           |                                                                |             |                       |             |
| Had any cohort-defining claim during the query period                                             | 4,072,616                                                      | 265,233,225 | 5,812,628             | 263,493,213 |
| Claim recorded during specified age range                                                         | 4,072,053                                                      | 563         | 5,812,139             | 489         |
| Episode defining index claim recorded during the query period                                     | 4,072,053                                                      | 0           | 5,812,139             | 0           |
| <b>Members with Required Pre-index History</b>                                                    |                                                                |             |                       |             |
| Had sufficient pre-index continuous enrollment                                                    | 3,227,176                                                      | 844,877     | 4,543,850             | 1,268,289   |
| Met inclusion and exclusion criteria <sup>1</sup>                                                 | 925,058                                                        | 2,302,118   | 1,077,367             | 3,466,483   |
| <i>Inclusion of T2DM diagnosis</i>                                                                | N/A                                                            | 805,998     | N/A                   | 1,566,977   |
| <i>Exclusion of T1DM diagnosis</i>                                                                | N/A                                                            | 384,060     | N/A                   | 327,263     |
| <i>Exclusion of 2 broad RCC diagnosis codes</i>                                                   | N/A                                                            | 24,891      | N/A                   | 39,110      |
| <i>Exclusion of kidney cancer history or acquired absence of kidney</i>                           | N/A                                                            | 37,007      | N/A                   | 59,786      |
| <i>Exclusion of chronic kidney disease (stages III-V) or dialysis</i>                             | N/A                                                            | 703,954     | N/A                   | 1,132,128   |
| <i>Other drug-based exclusions:</i>                                                               |                                                                |             |                       |             |
| <i>CANA washout (-365, -1)</i>                                                                    | N/A                                                            | N/A         | N/A                   | N/A         |
| <i>Other drug use exclusions for CANA initiators: other SGLT-2is, DPP-4is, GLP-1RAs (-365, 0)</i> | N/A                                                            | N/A         | N/A                   | N/A         |
| <i>SITA washout (-365, -1)</i>                                                                    | N/A                                                            | 2,127,518   | N/A                   | N/A         |
| <i>Other drug use exclusions for SITA initiators: other DPP-4is, SGLT-2is, GLP-1RAs (-365, 0)</i> | N/A                                                            | 908,336     | N/A                   | N/A         |
| <i>SGLT-2i washout (-365, -1)</i>                                                                 | N/A                                                            | N/A         | N/A                   | 3,022,610   |
| <i>Other drug use exclusions for SGLT-2i initiators: DPP-4is, GLP-1RAs (-365, 0)</i>              | N/A                                                            | N/A         | N/A                   | 1,995,395   |
| Met event incidence criteria                                                                      | 925,058                                                        | 0           | 1,077,367             | 0           |
| <b>Members with Required Post-Index Follow-Up</b>                                                 |                                                                |             |                       |             |
| Had sufficient post-index continuous enrollment                                                   | 925,058                                                        | 0           | 1,077,367             | 0           |
| Had index episode of at least required length                                                     | 925,058                                                        | 0           | 1,077,367             | 0           |
| Had index episode longer than blackout period                                                     | 925,058                                                        | 0           | 1,077,367             | 0           |
| Did not have an event during blackout period                                                      | 925,058                                                        | 0           | 1,077,367             | 0           |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                             | Initiators of Sitagliptin vs All SGLT-2 Inhibitors: Narrow RCC |          |                       |          |
|-----------------------------------------------------------------------------|----------------------------------------------------------------|----------|-----------------------|----------|
|                                                                             | Sitagliptin                                                    |          | All SGLT-2 Inhibitors |          |
|                                                                             | Remaining                                                      | Excluded | Remaining             | Excluded |
| <b>Final Cohort</b>                                                         |                                                                |          |                       |          |
| Number of members                                                           | 925,058                                                        | N/A      | 1,077,367             | N/A      |
| Number of episodes                                                          | 925,058                                                        | N/A      | 1,077,367             | N/A      |
| <b>Members Meeting Comparative Cohort Eligibility Requirements</b>          |                                                                |          |                       |          |
| Excluded due to ineligibility for comparative analysis <sup>2</sup>         | 916,421                                                        | 8,637    | 1,048,376             | 28,991   |
| Included in comparative analysis                                            | 916,421                                                        | 0        | 1,048,376             | 0        |
| <b>Additional Information</b>                                               |                                                                |          |                       |          |
| Number of events in comparative analysis                                    | 1,510                                                          | N/A      | 1,218                 | N/A      |
| Number of patients with a truncated inverse probability of treatment weight | 39,298                                                         | N/A      | 0                     | N/A      |



**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                                   | Initiators of Sitagliptin vs All SGLT-2 Inhibitors: Broad RCC |             |                       |             |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------|-----------------------|-------------|
|                                                                                                   | Sitagliptin                                                   |             | All SGLT-2 Inhibitors |             |
|                                                                                                   | Remaining                                                     | Excluded    | Remaining             | Excluded    |
| <b>Members Meeting Enrollment and Demographic Requirements</b>                                    |                                                               |             |                       |             |
| Enrolled at any point during the query period                                                     | 450,322,417                                                   | N/A         | 450,322,417           | N/A         |
| Had required coverage type (medical and/or drug coverage)                                         | 335,091,717                                                   | 115,230,700 | 335,091,717           | 115,230,700 |
| Enrolled during specified age range                                                               | 269,432,996                                                   | 65,658,721  | 269,432,996           | 65,658,721  |
| Had requestable medical charts                                                                    | 269,432,996                                                   | 0           | 269,432,996           | 0           |
| Met demographic requirements (sex, race, and Hispanic origin)                                     | 269,305,841                                                   | 127,155     | 269,305,841           | 127,155     |
| <b>Members with a Valid Index Event</b>                                                           |                                                               |             |                       |             |
| Had any cohort-defining claim during the query period                                             | 4,072,616                                                     | 265,233,225 | 5,812,628             | 263,493,213 |
| Claim recorded during specified age range                                                         | 4,072,053                                                     | 563         | 5,812,139             | 489         |
| Episode defining index claim recorded during the query period                                     | 4,072,053                                                     | 0           | 5,812,139             | 0           |
| <b>Members with Required Pre-index History</b>                                                    |                                                               |             |                       |             |
| Had sufficient pre-index continuous enrollment                                                    | 3,227,176                                                     | 844,877     | 4,543,850             | 1,268,289   |
| Met inclusion and exclusion criteria <sup>1</sup>                                                 | 925,058                                                       | 2,302,118   | 1,077,367             | 3,466,483   |
| <i>Inclusion of T2DM diagnosis</i>                                                                | N/A                                                           | 805,998     | N/A                   | 1,566,977   |
| <i>Exclusion of T1DM diagnosis</i>                                                                | N/A                                                           | 384,060     | N/A                   | 327,263     |
| <i>Exclusion of 2 broad RCC diagnosis codes</i>                                                   | N/A                                                           | 24,891      | N/A                   | 39,110      |
| <i>Exclusion of kidney cancer history or acquired absence of kidney</i>                           | N/A                                                           | 37,007      | N/A                   | 59,786      |
| <i>Exclusion of chronic kidney disease (stages III-V) or dialysis</i>                             | N/A                                                           | 703,954     | N/A                   | 1,132,128   |
| <i>Other drug-based exclusions:</i>                                                               |                                                               |             |                       |             |
| <i>CANA washout (-365, -1)</i>                                                                    | N/A                                                           | N/A         | N/A                   | N/A         |
| <i>Other drug use exclusions for CANA initiators: other SGLT-2is, DPP-4is, GLP-1RAs (-365, 0)</i> | N/A                                                           | N/A         | N/A                   | N/A         |
| <i>SITA washout (-365, -1)</i>                                                                    | N/A                                                           | 2,127,518   | N/A                   | N/A         |
| <i>Other drug use exclusions for SITA initiators: other DPP-4is, SGLT-2is, GLP-1RAs (-365, 0)</i> | N/A                                                           | 908,336     | N/A                   | N/A         |
| <i>SGLT-2i washout (-365, -1)</i>                                                                 | N/A                                                           | N/A         | N/A                   | 3,022,610   |
| <i>Other drug use exclusions for SGLT-2i initiators: DPP-4is, GLP-1RAs (-365, 0)</i>              | N/A                                                           | N/A         | N/A                   | 1,995,395   |
| Met event incidence criteria                                                                      | 925,058                                                       | 0           | 1,077,367             | 0           |
| <b>Members with Required Post-Index Follow-Up</b>                                                 |                                                               |             |                       |             |
| Had sufficient post-index continuous enrollment                                                   | 925,058                                                       | 0           | 1,077,367             | 0           |
| Had index episode of at least required length                                                     | 925,058                                                       | 0           | 1,077,367             | 0           |
| Had index episode longer than blackout period                                                     | 925,058                                                       | 0           | 1,077,367             | 0           |
| Did not have an event during blackout period                                                      | 925,058                                                       | 0           | 1,077,367             | 0           |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                             | Initiators of Sitagliptin vs All SGLT-2 Inhibitors: Broad RCC |          |                       |          |
|-----------------------------------------------------------------------------|---------------------------------------------------------------|----------|-----------------------|----------|
|                                                                             | Sitagliptin                                                   |          | All SGLT-2 Inhibitors |          |
|                                                                             | Remaining                                                     | Excluded | Remaining             | Excluded |
| <b>Final Cohort</b>                                                         |                                                               |          |                       |          |
| Number of members                                                           | 925,058                                                       | N/A      | 1,077,367             | N/A      |
| Number of episodes                                                          | 925,058                                                       | N/A      | 1,077,367             | N/A      |
| <b>Members Meeting Comparative Cohort Eligibility Requirements</b>          |                                                               |          |                       |          |
| Excluded due to ineligibility for comparative analysis <sup>2</sup>         | 916,421                                                       | 8,637    | 1,048,376             | 28,991   |
| Included in comparative analysis                                            | 916,421                                                       | 0        | 1,048,376             | 0        |
| <b>Additional Information</b>                                               |                                                               |          |                       |          |
| Number of events in comparative analysis                                    | 2,085                                                         | N/A      | 1,833                 | N/A      |
| Number of patients with a truncated inverse probability of treatment weight | 39,298                                                        | N/A      | 0                     | N/A      |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                            | Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Censoring at Non-RCC Malignancy |             |             |             |
|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------|-------------|-------------|
|                                                                                            | Canagliflozin                                                                           |             | Sitagliptin |             |
|                                                                                            | Remaining                                                                               | Excluded    | Remaining   | Excluded    |
| <b>Members Meeting Enrollment and Demographic Requirements</b>                             |                                                                                         |             |             |             |
| Enrolled at any point during the query period                                              | 450,322,417                                                                             | N/A         | 450,322,417 | N/A         |
| Had required coverage type (medical and/or drug coverage)                                  | 335,091,717                                                                             | 115,230,700 | 335,091,717 | 115,230,700 |
| Enrolled during specified age range                                                        | 269,432,996                                                                             | 65,658,721  | 269,432,996 | 65,658,721  |
| Had requestable medical charts                                                             | 269,432,996                                                                             | 0           | 269,432,996 | 0           |
| Met demographic requirements (sex, race, and Hispanic origin)                              | 269,305,841                                                                             | 127,155     | 269,305,841 | 127,155     |
| <b>Members with a Valid Index Event</b>                                                    |                                                                                         |             |             |             |
| Had any cohort-defining claim during the query period                                      | 873,356                                                                                 | 268,432,485 | 4,072,616   | 265,233,225 |
| Claim recorded during specified age range                                                  | 873,114                                                                                 | 242         | 4,072,053   | 563         |
| Episode defining index claim recorded during the query period                              | 873,114                                                                                 | 0           | 4,072,053   | 0           |
| <b>Members with Required Pre-index History</b>                                             |                                                                                         |             |             |             |
| Had sufficient pre-index continuous enrollment                                             | 687,044                                                                                 | 186,070     | 3,227,176   | 844,877     |
| Met inclusion and exclusion criteria <sup>1</sup>                                          | 161,970                                                                                 | 525,074     | 925,058     | 2,302,118   |
| Inclusion of T2DM diagnosis                                                                | N/A                                                                                     | 141,074     | N/A         | 805,998     |
| Exclusion of T1DM diagnosis                                                                | N/A                                                                                     | 87,188      | N/A         | 384,060     |
| Exclusion of 2 broad RCC diagnosis codes                                                   | N/A                                                                                     | 3,074       | N/A         | 24,891      |
| Exclusion of kidney cancer history or acquired absence of kidney                           | N/A                                                                                     | 4,484       | N/A         | 37,007      |
| Exclusion of chronic kidney disease (stages III-V) or dialysis                             | N/A                                                                                     | 79,922      | N/A         | 703,954     |
| Other drug-based exclusions:                                                               |                                                                                         |             |             |             |
| CANA washout (-365, -1)                                                                    | N/A                                                                                     | 461,476     | N/A         | N/A         |
| Other drug use exclusions for CANA initiators: other SGLT-2is, DPP-4is, GLP-1RAs (-365, 0) | N/A                                                                                     | 386,798     | N/A         | N/A         |
| SITA washout (-365, -1)                                                                    | N/A                                                                                     | N/A         | N/A         | 2,127,518   |
| Other drug use exclusions for SITA initiators: other DPP-4is, SGLT-2is, GLP-1RAs (-365, 0) | N/A                                                                                     | N/A         | N/A         | 908,336     |
| SGLT-2i washout (-365, -1)                                                                 | N/A                                                                                     | N/A         | N/A         | N/A         |
| Other drug use exclusions for SGLT-2i initiators: DPP-4is, GLP-1RAs (-365, 0)              | N/A                                                                                     | N/A         | N/A         | N/A         |
| Met event incidence criteria                                                               | 161,970                                                                                 | 0           | 925,058     | 0           |
| <b>Members with Required Post-Index Follow-Up</b>                                          |                                                                                         |             |             |             |
| Had sufficient post-index continuous enrollment                                            | 161,970                                                                                 | 0           | 925,058     | 0           |
| Had index episode of at least required length                                              | 161,970                                                                                 | 0           | 925,058     | 0           |
| Had index episode longer than blackout period                                              | 161,970                                                                                 | 0           | 925,058     | 0           |
| Did not have an event during blackout period                                               | 161,970                                                                                 | 0           | 925,058     | 0           |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                             | Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Censoring at Non-RCC Malignancy |          |             |          |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------|-------------|----------|
|                                                                             | Canagliflozin                                                                           |          | Sitagliptin |          |
|                                                                             | Remaining                                                                               | Excluded | Remaining   | Excluded |
| <b>Final Cohort</b>                                                         |                                                                                         |          |             |          |
| Number of members                                                           | 161,970                                                                                 | N/A      | 925,058     | N/A      |
| Number of episodes                                                          | 161,970                                                                                 | N/A      | 925,058     | N/A      |
| <b>Members Meeting Comparative Cohort Eligibility Requirements</b>          |                                                                                         |          |             |          |
| Excluded due to ineligibility for comparative analysis <sup>2</sup>         | 159,011                                                                                 | 2,959    | 921,012     | 4,046    |
| Included in comparative analysis                                            | 159,011                                                                                 | 0        | 921,012     | 0        |
| <b>Additional Information</b>                                               |                                                                                         |          |             |          |
| Number of events in comparative analysis                                    | 140                                                                                     | N/A      | 709         | N/A      |
| Number of patients with a truncated inverse probability of treatment weight | 0                                                                                       | N/A      | 13,322      | N/A      |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                                            | Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Censoring at GLP-1RA or Insulin Initiation |             |             |             |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
|                                                                                            | Canagliflozin                                                                                      |             | Sitagliptin |             |
|                                                                                            | Remaining                                                                                          | Excluded    | Remaining   | Excluded    |
| <b>Members Meeting Enrollment and Demographic Requirements</b>                             |                                                                                                    |             |             |             |
| Enrolled at any point during the query period                                              | 450,322,417                                                                                        | N/A         | 450,322,417 | N/A         |
| Had required coverage type (medical and/or drug coverage)                                  | 335,091,717                                                                                        | 115,230,700 | 335,091,717 | 115,230,700 |
| Enrolled during specified age range                                                        | 269,432,996                                                                                        | 65,658,721  | 269,432,996 | 65,658,721  |
| Had requestable medical charts                                                             | 269,432,996                                                                                        | 0           | 269,432,996 | 0           |
| Met demographic requirements (sex, race, and Hispanic origin)                              | 269,305,841                                                                                        | 127,155     | 269,305,841 | 127,155     |
| <b>Members with a Valid Index Event</b>                                                    |                                                                                                    |             |             |             |
| Had any cohort-defining claim during the query period                                      | 873,356                                                                                            | 268,432,485 | 4,072,616   | 265,233,225 |
| Claim recorded during specified age range                                                  | 873,114                                                                                            | 242         | 4,072,053   | 563         |
| Episode defining index claim recorded during the query period                              | 873,114                                                                                            | 0           | 4,072,053   | 0           |
| <b>Members with Required Pre-index History</b>                                             |                                                                                                    |             |             |             |
| Had sufficient pre-index continuous enrollment                                             | 687,044                                                                                            | 186,070     | 3,227,176   | 844,877     |
| Met inclusion and exclusion criteria <sup>1</sup>                                          | 161,970                                                                                            | 525,074     | 925,058     | 2,302,118   |
| Inclusion of T2DM diagnosis                                                                | N/A                                                                                                | 141,074     | N/A         | 805,998     |
| Exclusion of T1DM diagnosis                                                                | N/A                                                                                                | 87,188      | N/A         | 384,060     |
| Exclusion of 2 broad RCC diagnosis codes                                                   | N/A                                                                                                | 3,074       | N/A         | 24,891      |
| Exclusion of kidney cancer history or acquired absence of kidney                           | N/A                                                                                                | 4,484       | N/A         | 37,007      |
| Exclusion of chronic kidney disease (stages III-V) or dialysis                             | N/A                                                                                                | 79,922      | N/A         | 703,954     |
| Other drug-based exclusions:                                                               |                                                                                                    |             |             |             |
| CANA washout (-365, -1)                                                                    | N/A                                                                                                | 461,476     | N/A         | N/A         |
| Other drug use exclusions for CANA initiators: other SGLT-2is, DPP-4is, GLP-1RAs (-365, 0) | N/A                                                                                                | 386,798     | N/A         | N/A         |
| SITA washout (-365, -1)                                                                    | N/A                                                                                                | N/A         | N/A         | 2,127,518   |
| Other drug use exclusions for SITA initiators: other DPP-4is, SGLT-2is, GLP-1RAs (-365, 0) | N/A                                                                                                | N/A         | N/A         | 908,336     |
| SGLT-2i washout (-365, -1)                                                                 | N/A                                                                                                | N/A         | N/A         | N/A         |
| Other drug use exclusions for SGLT-2i initiators: DPP-4is, GLP-1RAs (-365, 0)              | N/A                                                                                                | N/A         | N/A         | N/A         |
| Met event incidence criteria                                                               | 161,970                                                                                            | 0           | 925,058     | 0           |
| <b>Members with Required Post-Index Follow-Up</b>                                          |                                                                                                    |             |             |             |
| Had sufficient post-index continuous enrollment                                            | 161,970                                                                                            | 0           | 925,058     | 0           |
| Had index episode of at least required length                                              | 161,970                                                                                            | 0           | 925,058     | 0           |
| Had index episode longer than blackout period                                              | 161,970                                                                                            | 0           | 925,058     | 0           |
| Did not have an event during blackout period                                               | 161,970                                                                                            | 0           | 925,058     | 0           |

**Table 9. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

|                                                                             | Initiators of Canagliflozin vs Sitagliptin: Narrow RCC, Censoring at GLP-1RA or Insulin Initiation |          |             |          |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------|-------------|----------|
|                                                                             | Canagliflozin                                                                                      |          | Sitagliptin |          |
|                                                                             | Remaining                                                                                          | Excluded | Remaining   | Excluded |
| <b>Final Cohort</b>                                                         |                                                                                                    |          |             |          |
| Number of members                                                           | 161,970                                                                                            | N/A      | 925,058     | N/A      |
| Number of episodes                                                          | 161,970                                                                                            | N/A      | 925,058     | N/A      |
| <b>Members Meeting Comparative Cohort Eligibility Requirements</b>          |                                                                                                    |          |             |          |
| Excluded due to ineligibility for comparative analysis <sup>2</sup>         | 159,011                                                                                            | 2,959    | 921,012     | 4,046    |
| Included in comparative analysis                                            | 159,011                                                                                            | 0        | 921,012     | 0        |
| <b>Additional Information</b>                                               |                                                                                                    |          |             |          |
| Number of events in comparative analysis                                    | 198                                                                                                | N/A      | 1,141       | N/A      |
| Number of patients with a truncated inverse probability of treatment weight | 0                                                                                                  | N/A      | 13,322      | N/A      |

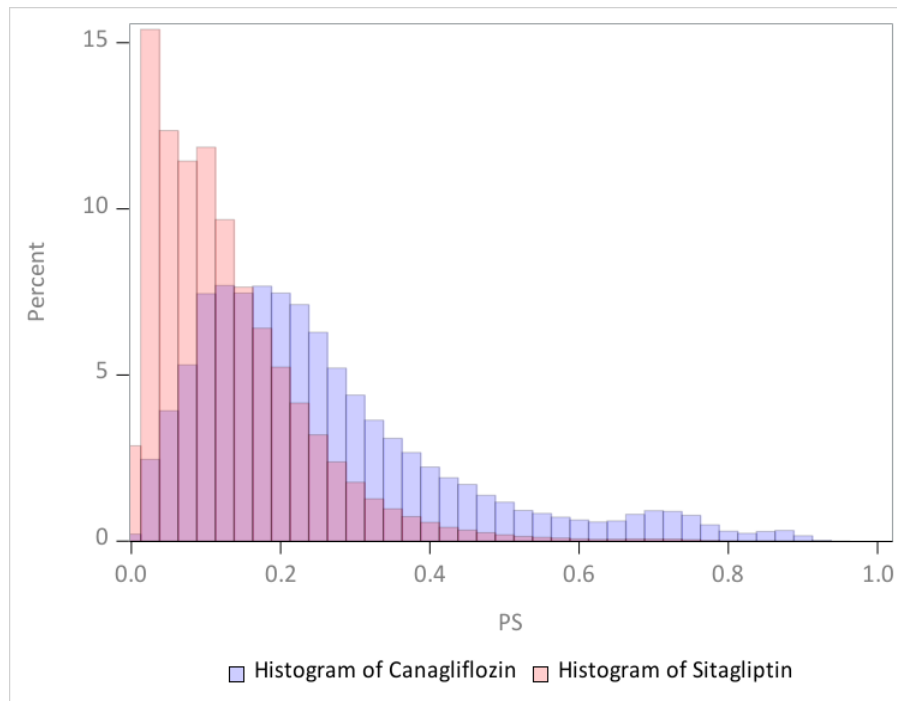
<sup>1</sup>Patients can meet multiple inclusion and/or exclusion criteria; therefore, the total number of patients excluded overall may not equal the sum of all patients in each criterion.

<sup>2</sup>Excluded due to propensity score trimming or due to lack of treatment heterogeneity in stratum.

**Abbreviations:** CANA = canagliflozin; SITA = sitagliptin; RCC = renal cell carcinoma; SGLT-2i = sodium-glucose cotransporter-2 inhibitors; T1DM = type 1 diabetes mellitus; T2DM = type 2 diabetes mellitus; GLP-1RA = glucagon-like peptide-1 receptor agonist; DPP-4 = dipeptidyl peptidase-4; N/A = not applicable.

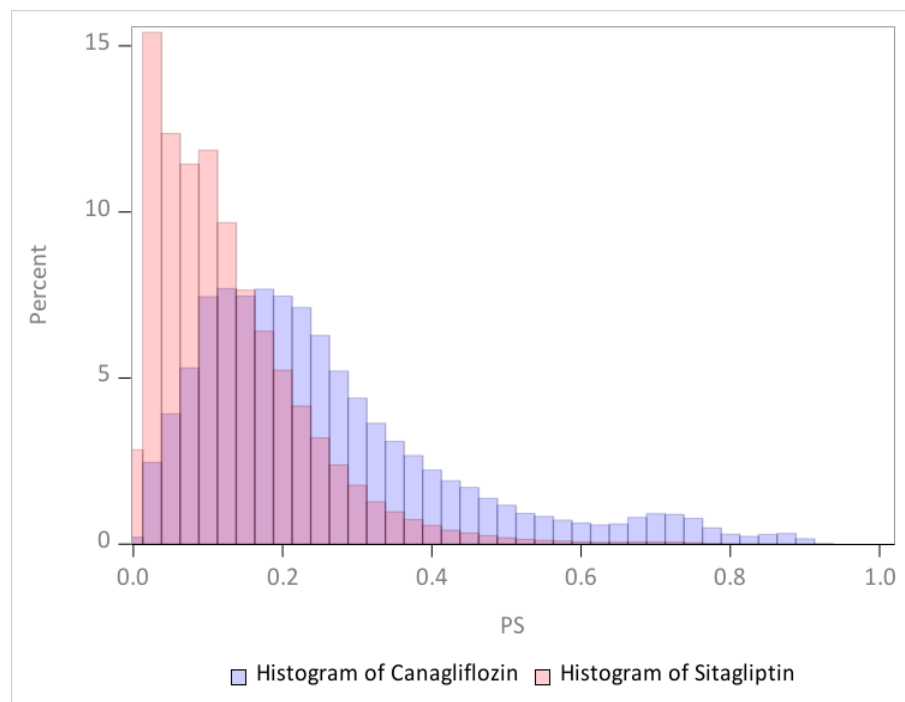
**Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

Unweighted Propensity Score Distribution Before Trimming



**Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

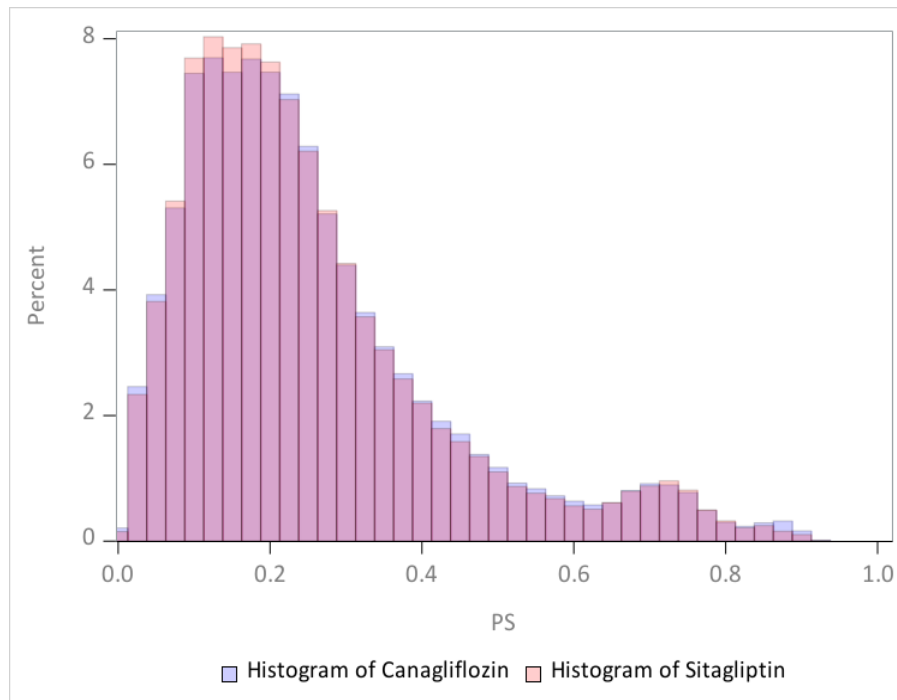
Unweighted Propensity Score Distribution After Trimming





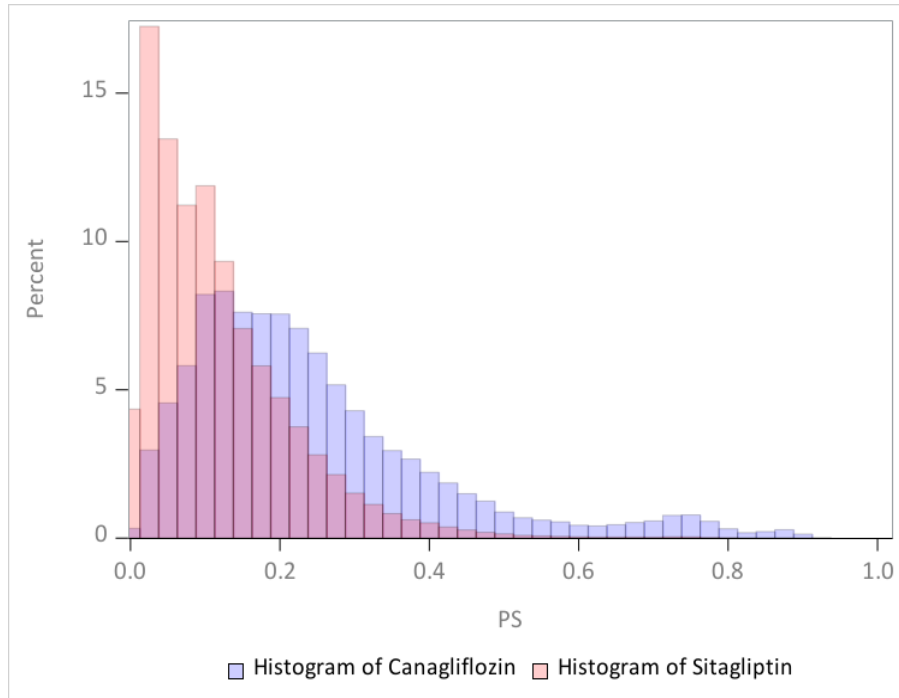
**Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)



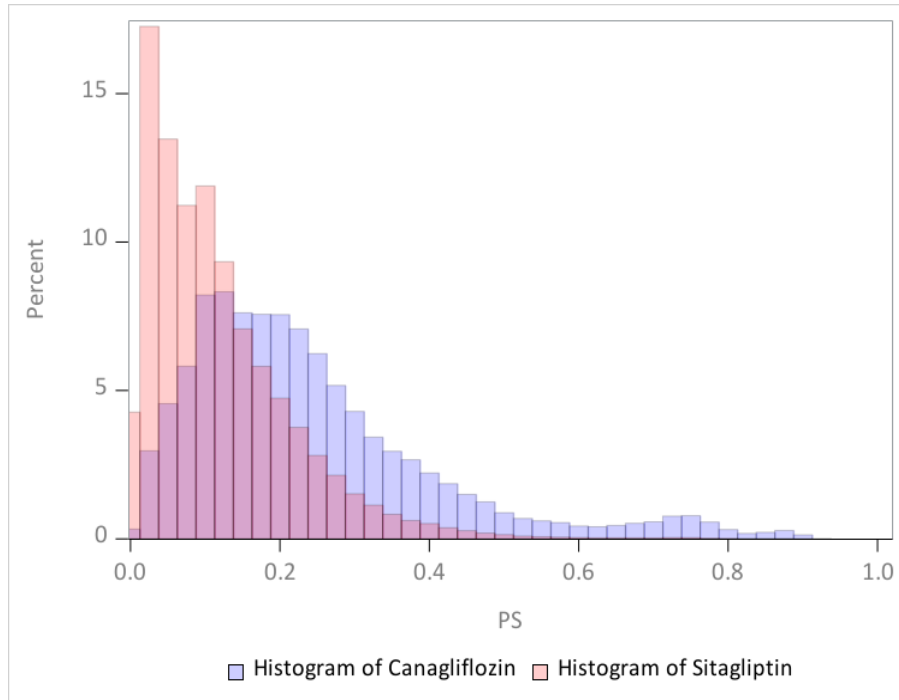
**Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

Unweighted Propensity Score Distribution Before Trimming



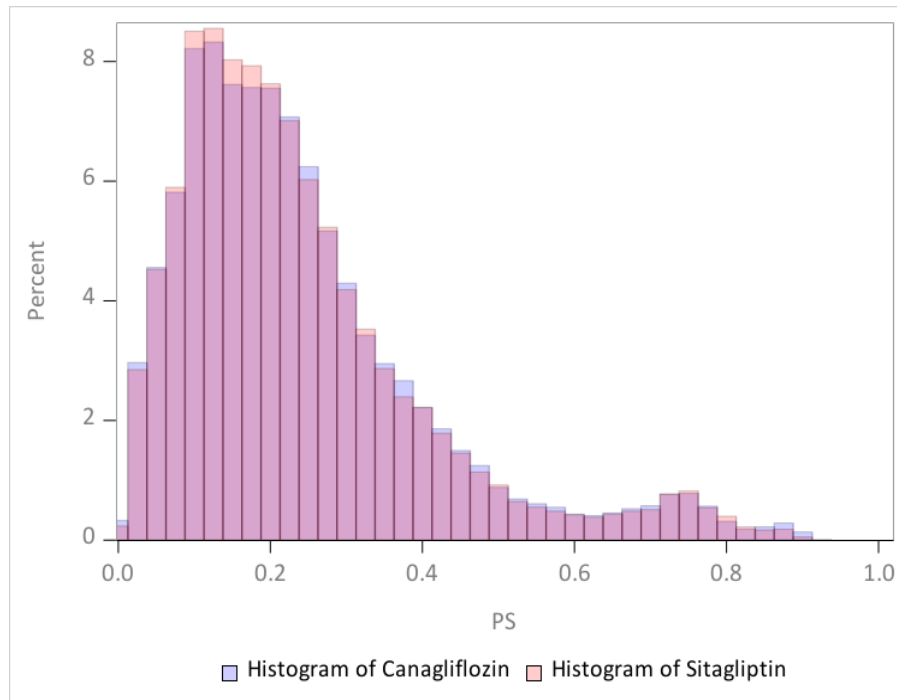
**Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

Unweighted Propensity Score Distribution After Trimming



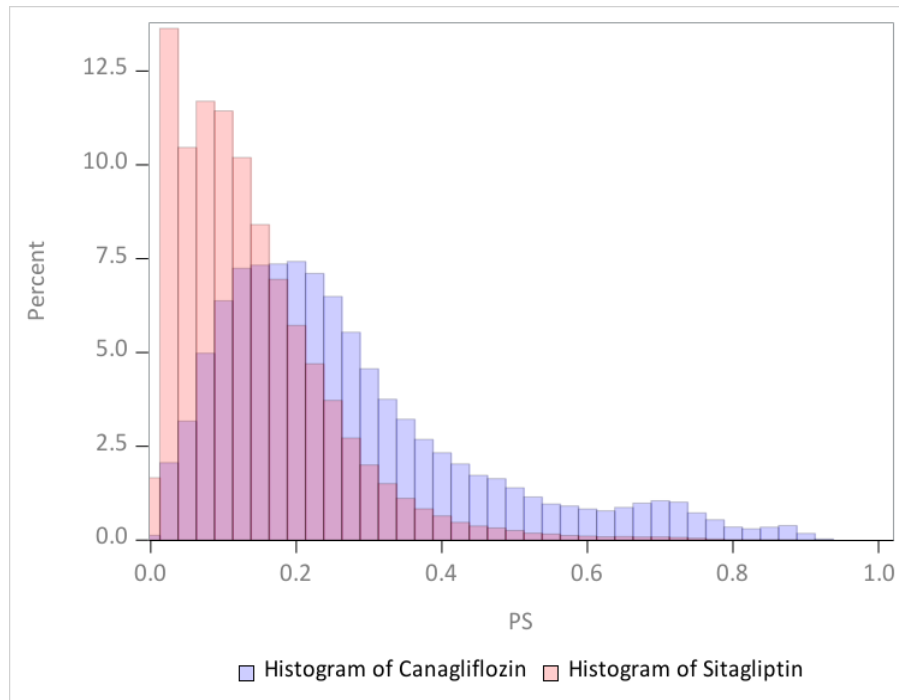
**Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Female**

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)



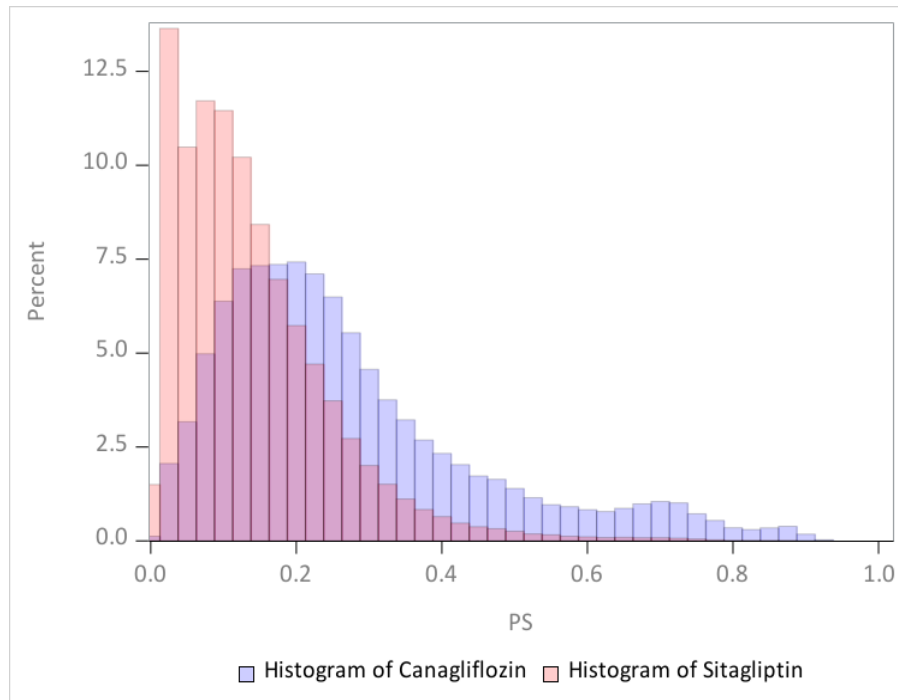
**Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

Unweighted Propensity Score Distribution Before Trimming



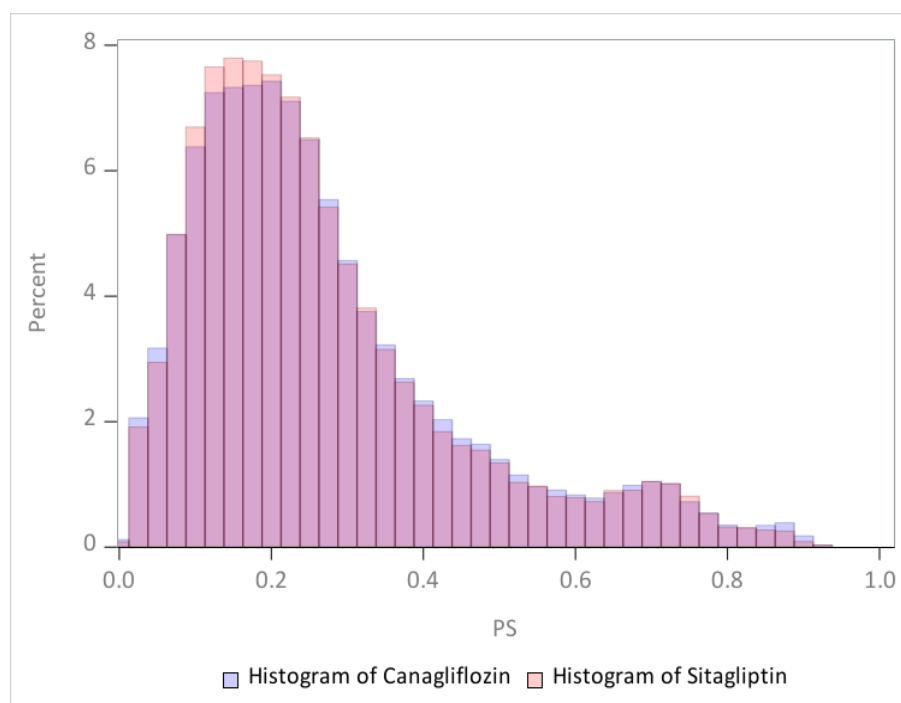
**Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

Unweighted Propensity Score Distribution After Trimming



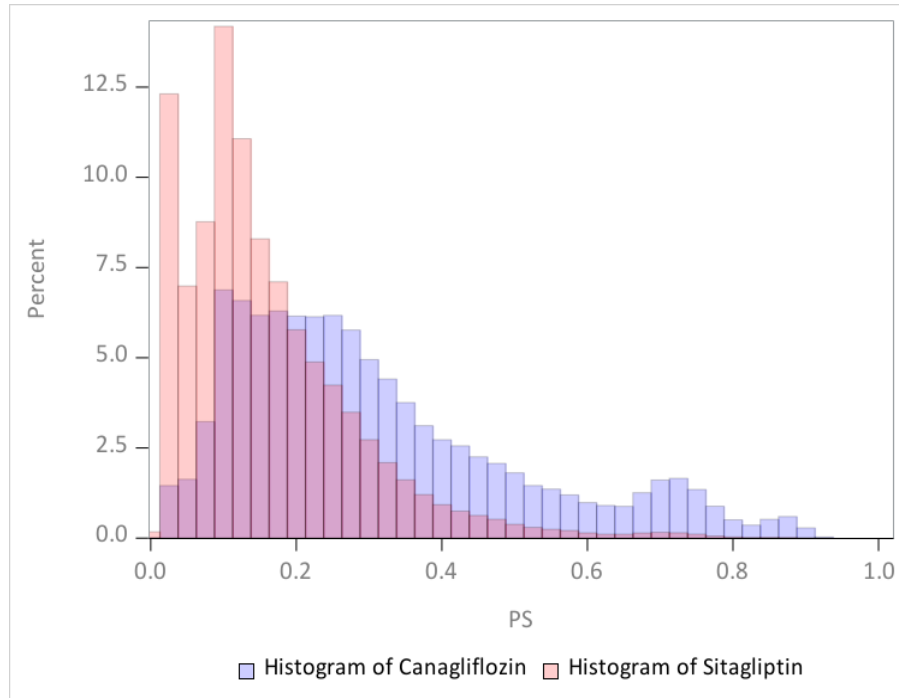
**Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Sex: Male**

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)



**Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

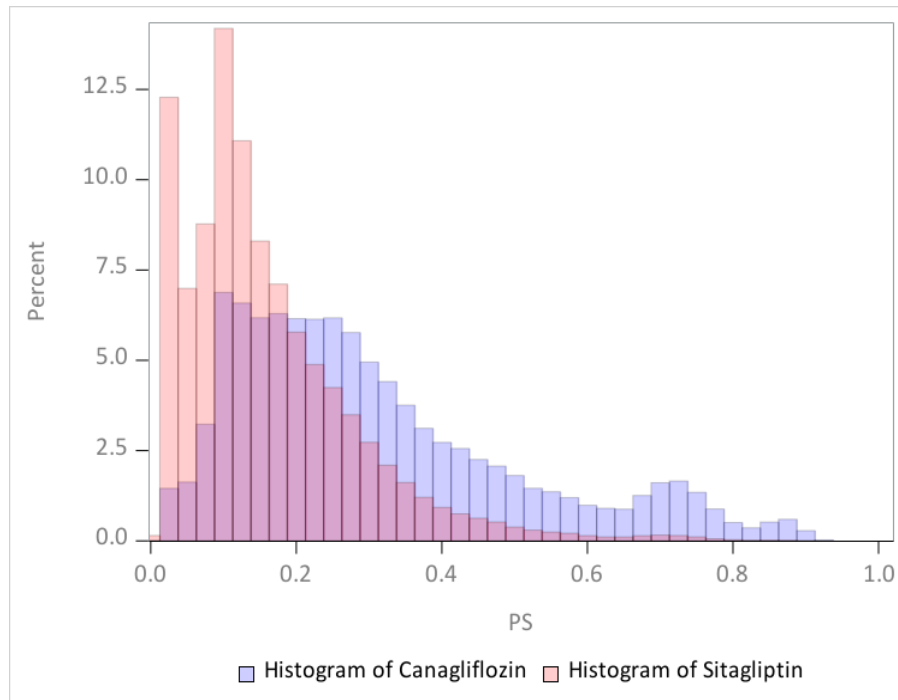
Unweighted Propensity Score Distribution Before Trimming





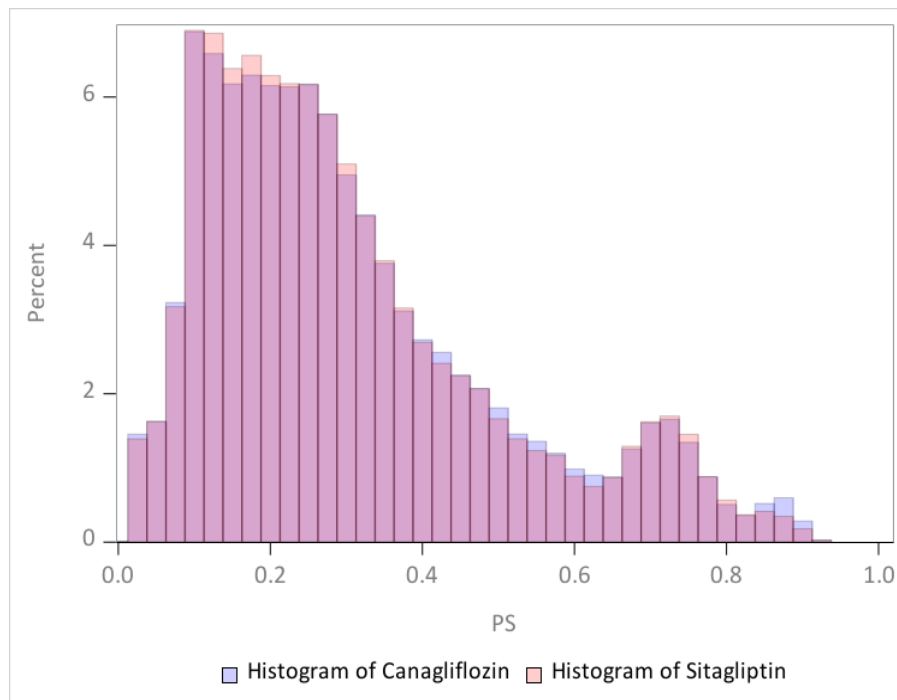
**Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

Unweighted Propensity Score Distribution After Trimming



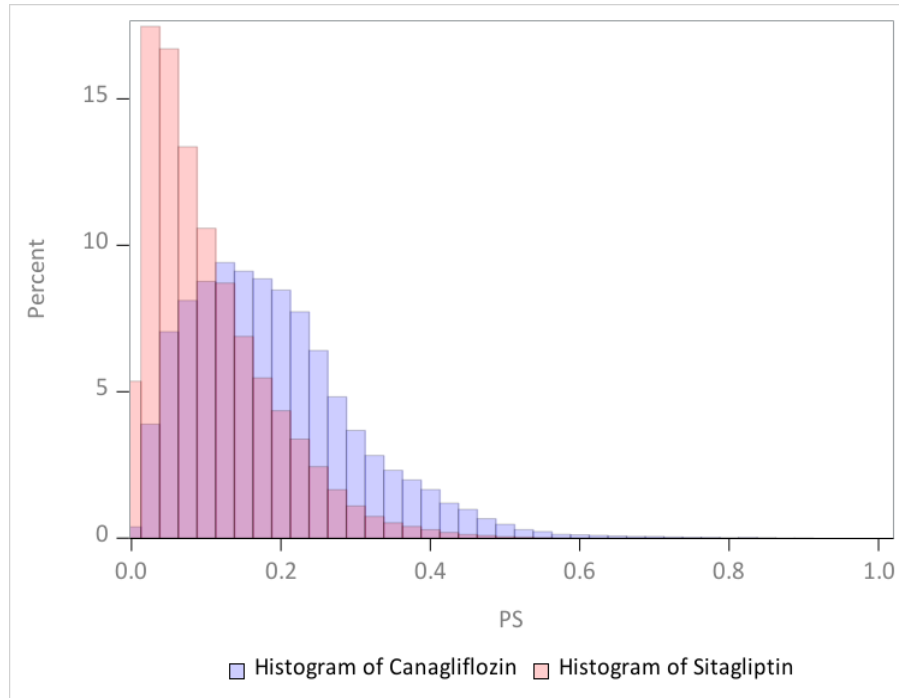
**Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age: <65 Years**

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)



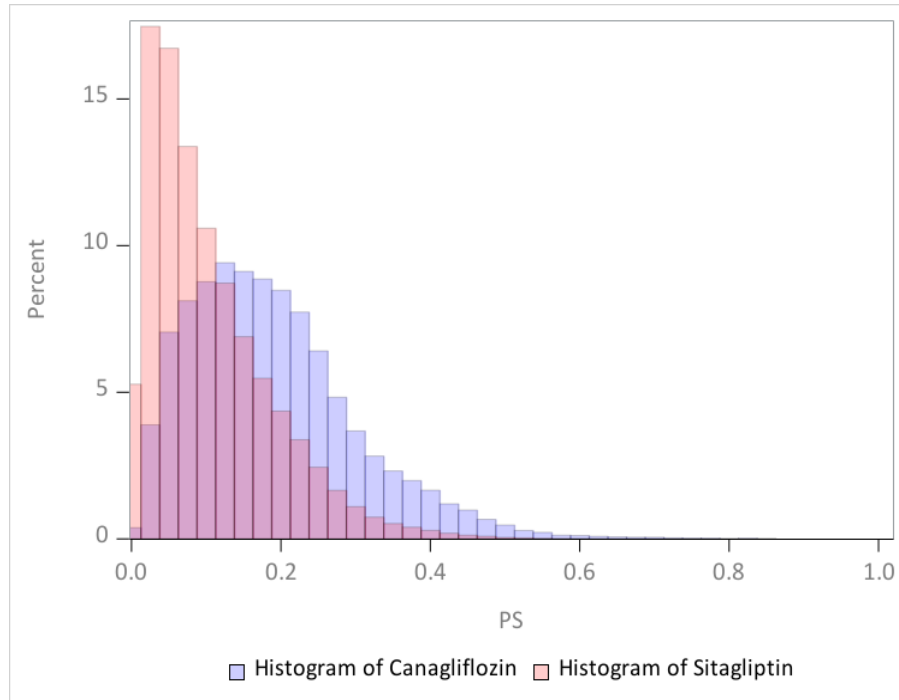
**Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age:  $\geq 65$  Years**

Unweighted Propensity Score Distribution Before Trimming



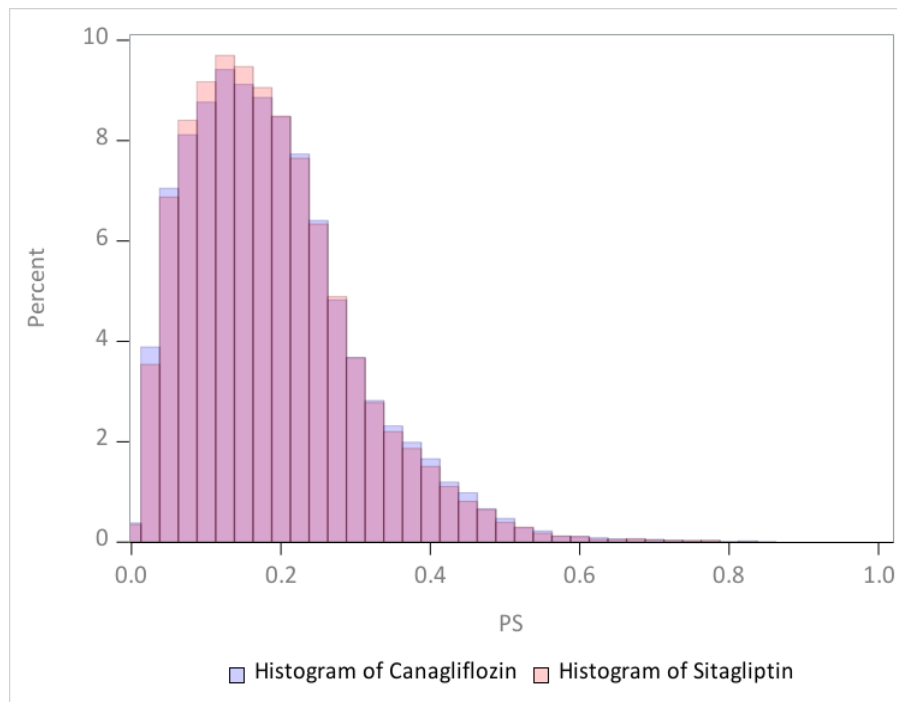
**Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age:  $\geq 65$  Years**

Unweighted Propensity Score Distribution After Trimming



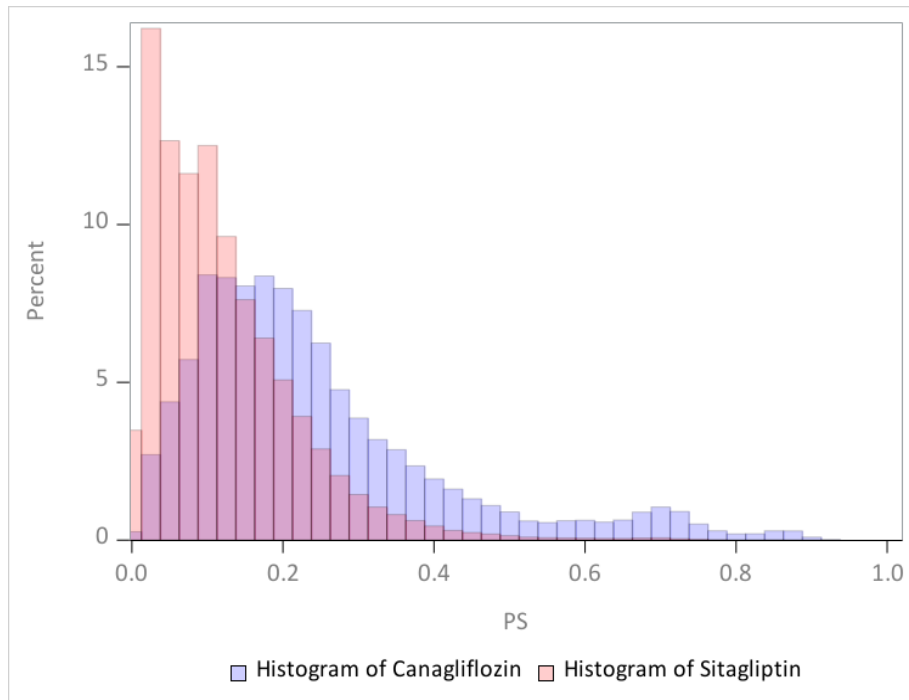
**Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Age:  $\geq 65$  Years**

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)



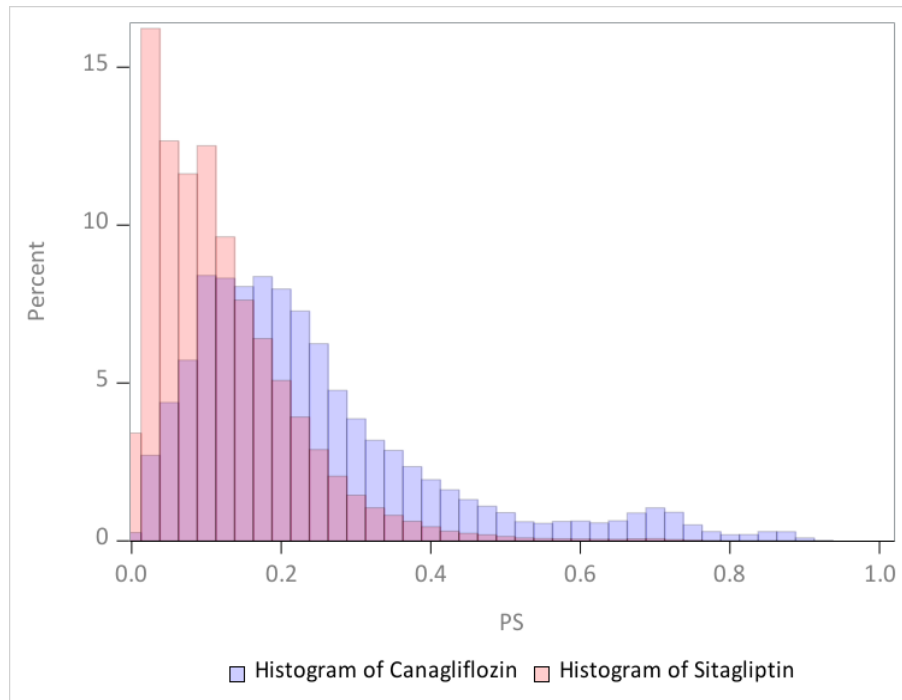
**Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

Unweighted Propensity Score Distribution Before Trimming



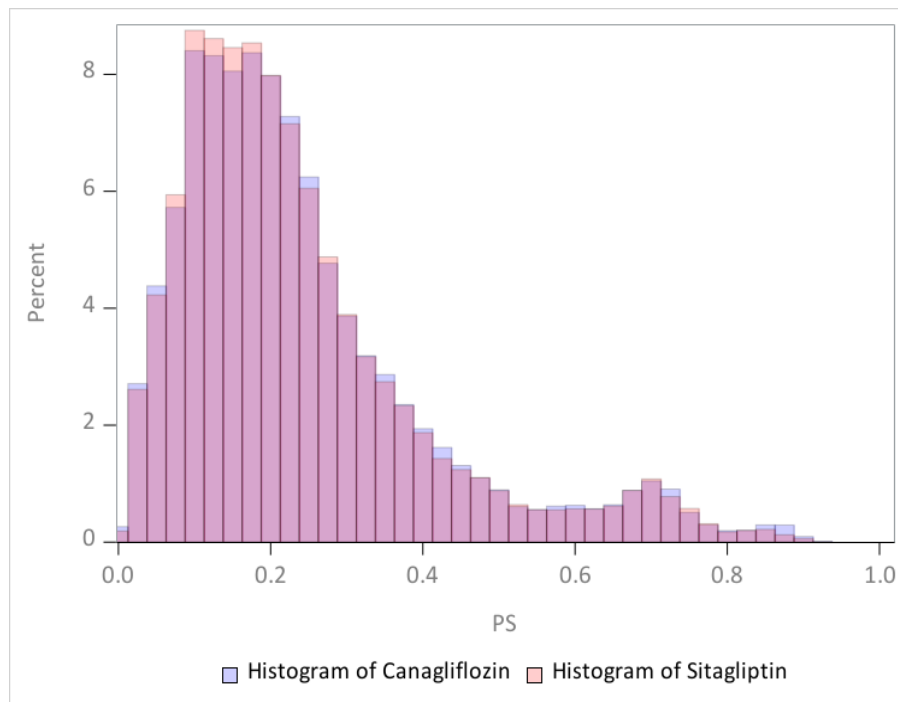
**Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

Unweighted Propensity Score Distribution After Trimming



**Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, No Obesity**

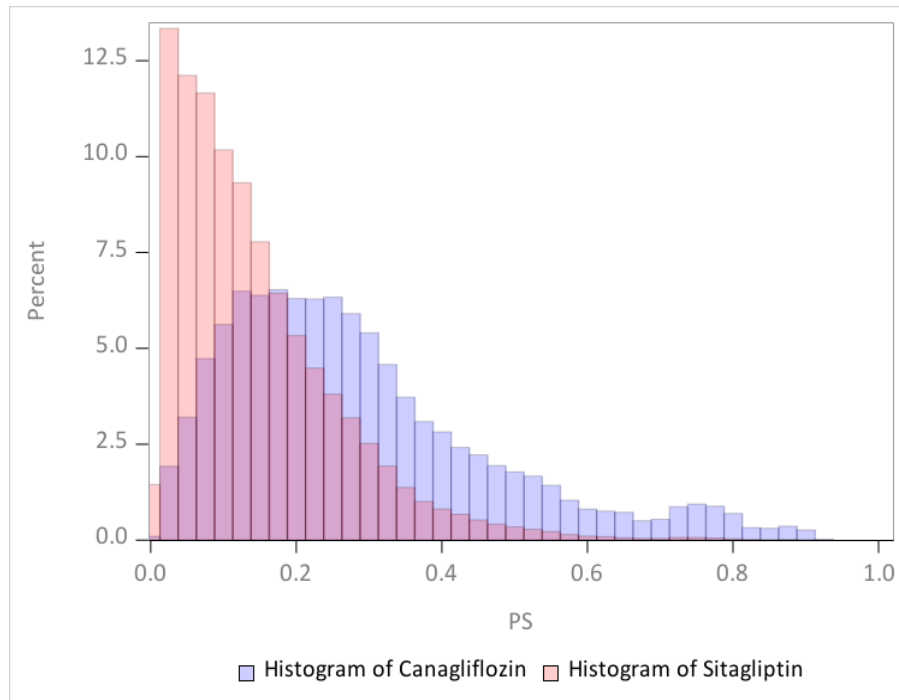
Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)





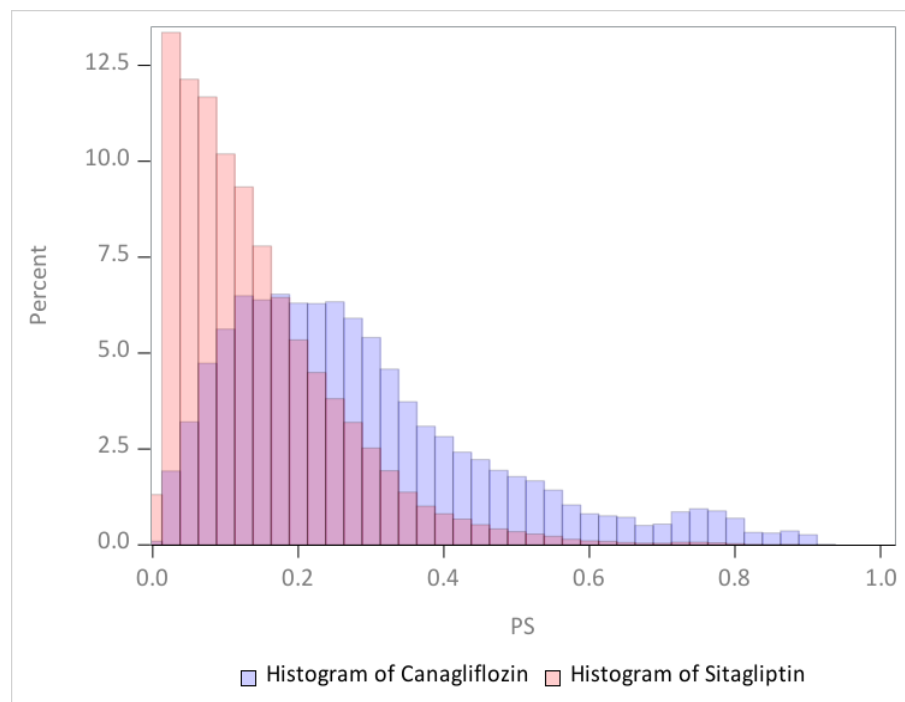
**Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

Unweighted Propensity Score Distribution Before Trimming



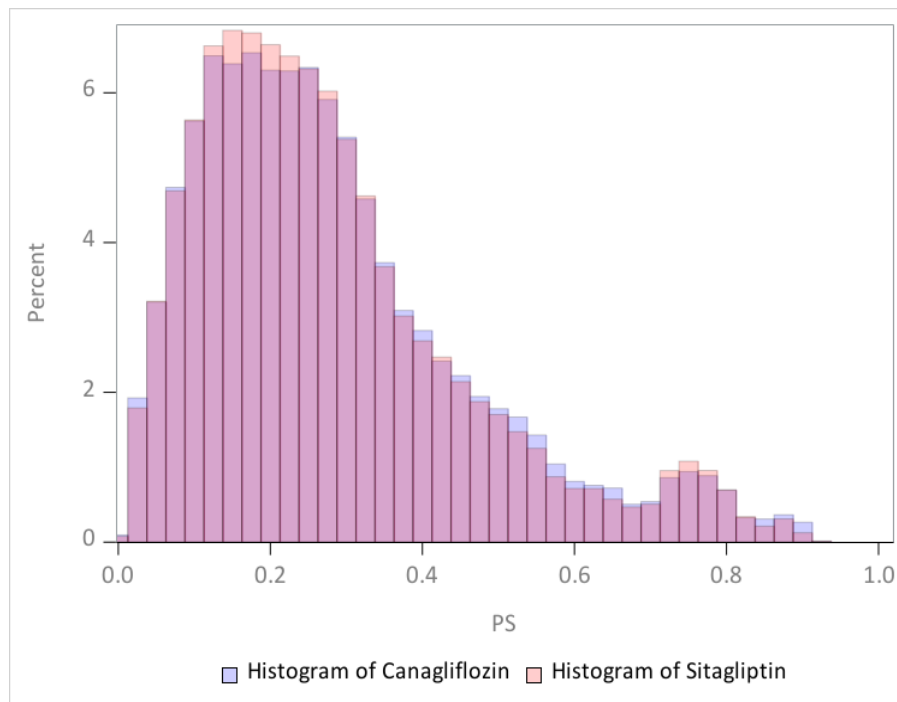
**Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

Unweighted Propensity Score Distribution After Trimming



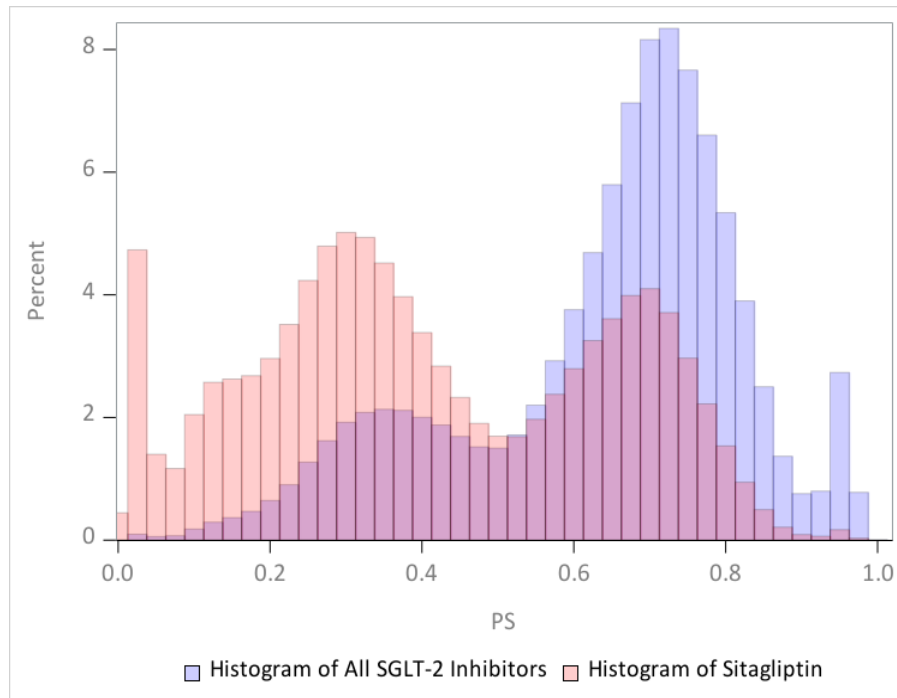
**Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of Canagliflozin vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025, Obesity**

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)



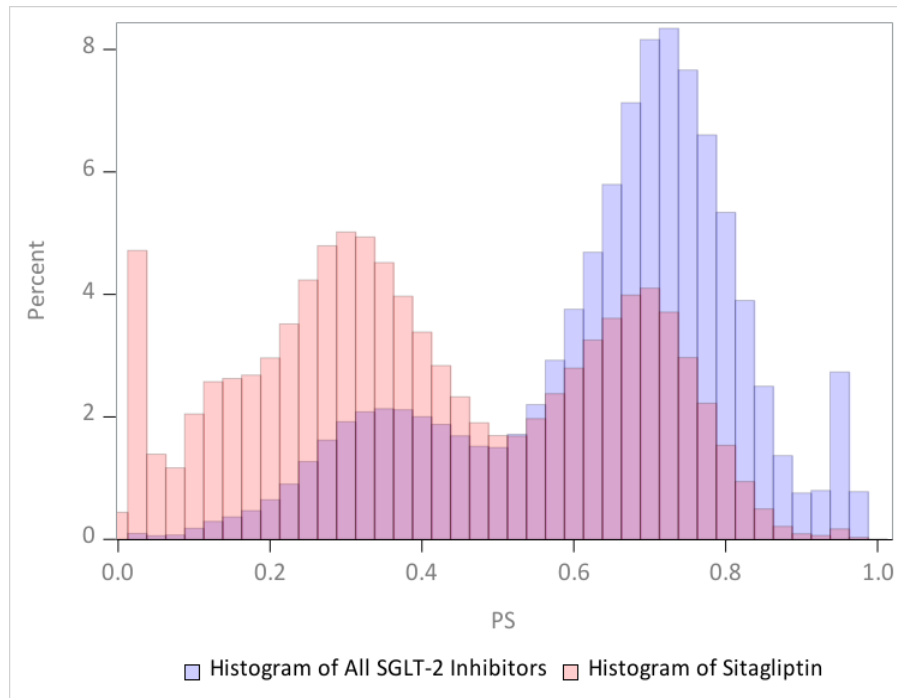
**Figure 2. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

Unweighted Propensity Score Distribution Before Trimming



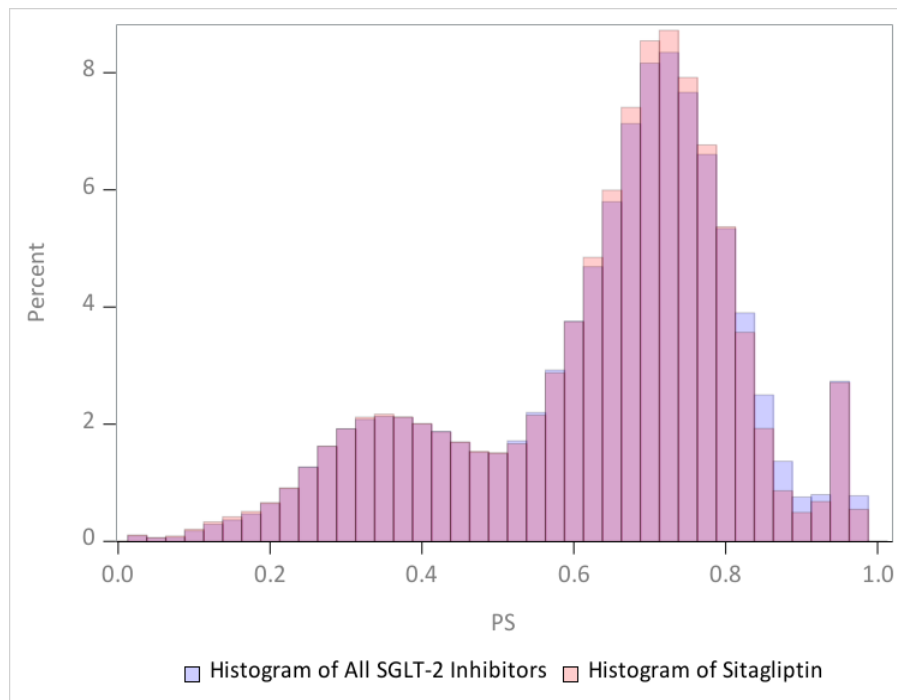
**Figure 2. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

Unweighted Propensity Score Distribution After Trimming



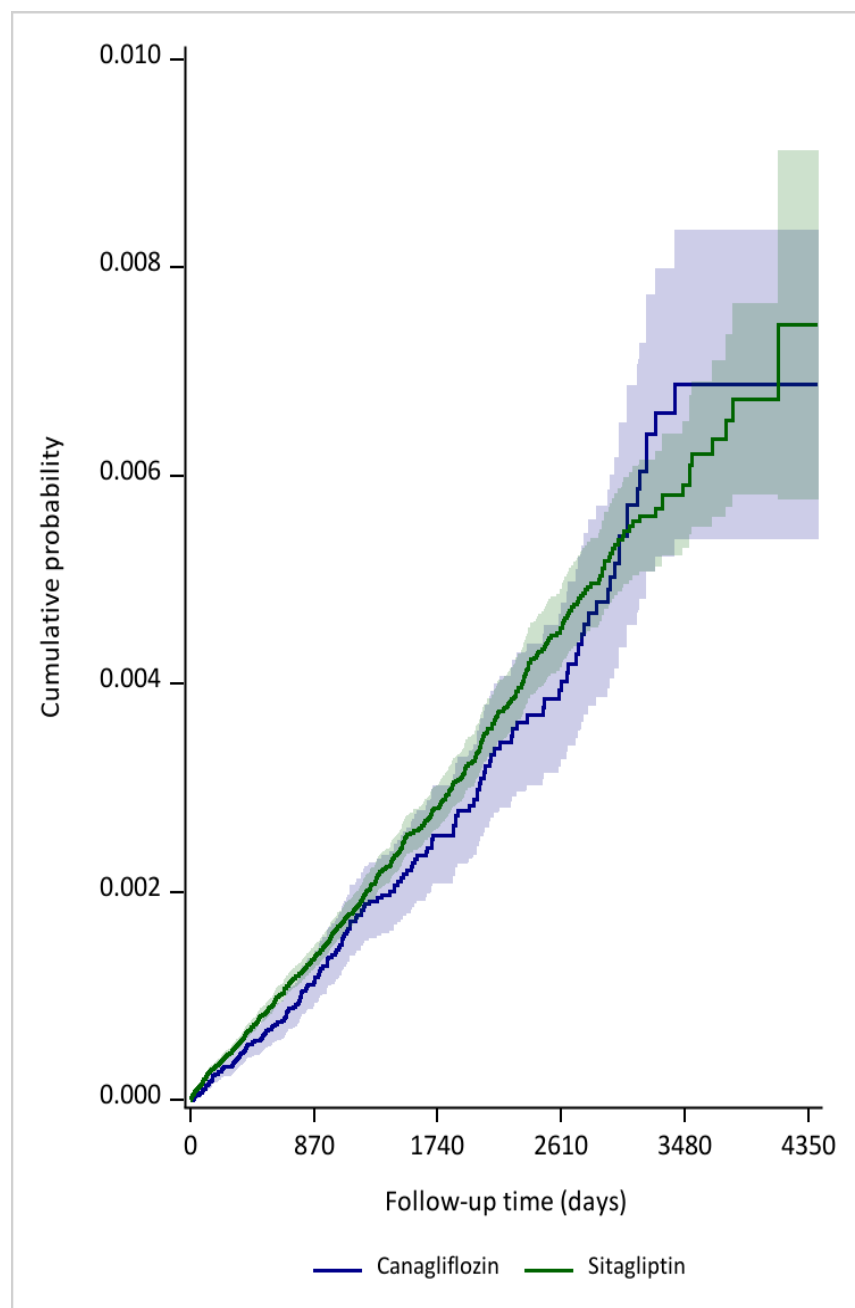
**Figure 2. Histograms Depicting Propensity Score Distributions Before and After Inverse-Probability-of-Treatment Weighting for Initiators of All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

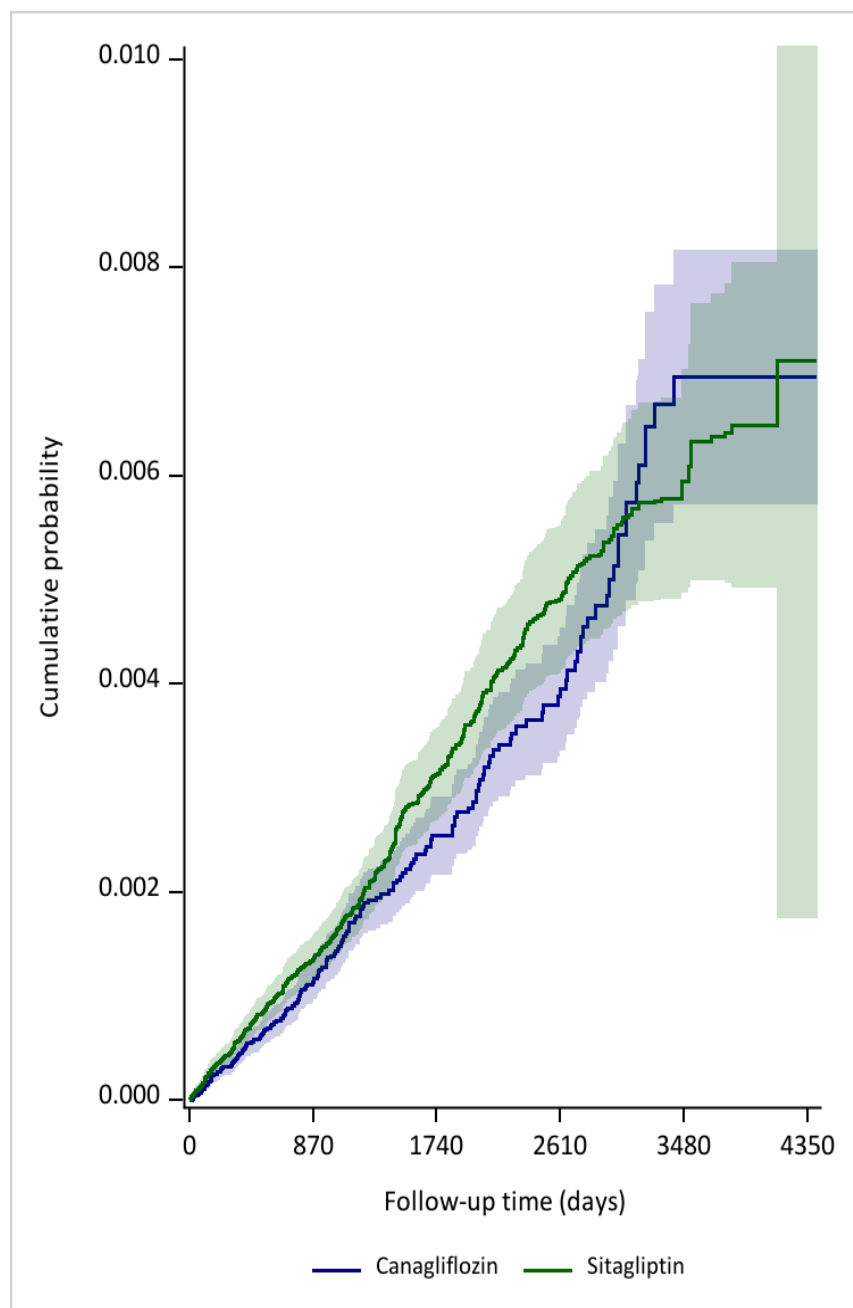


**Abbreviations:** SGLT-2i = sodium-glucose cotransporter-2 inhibitors.

**Figure 3a. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

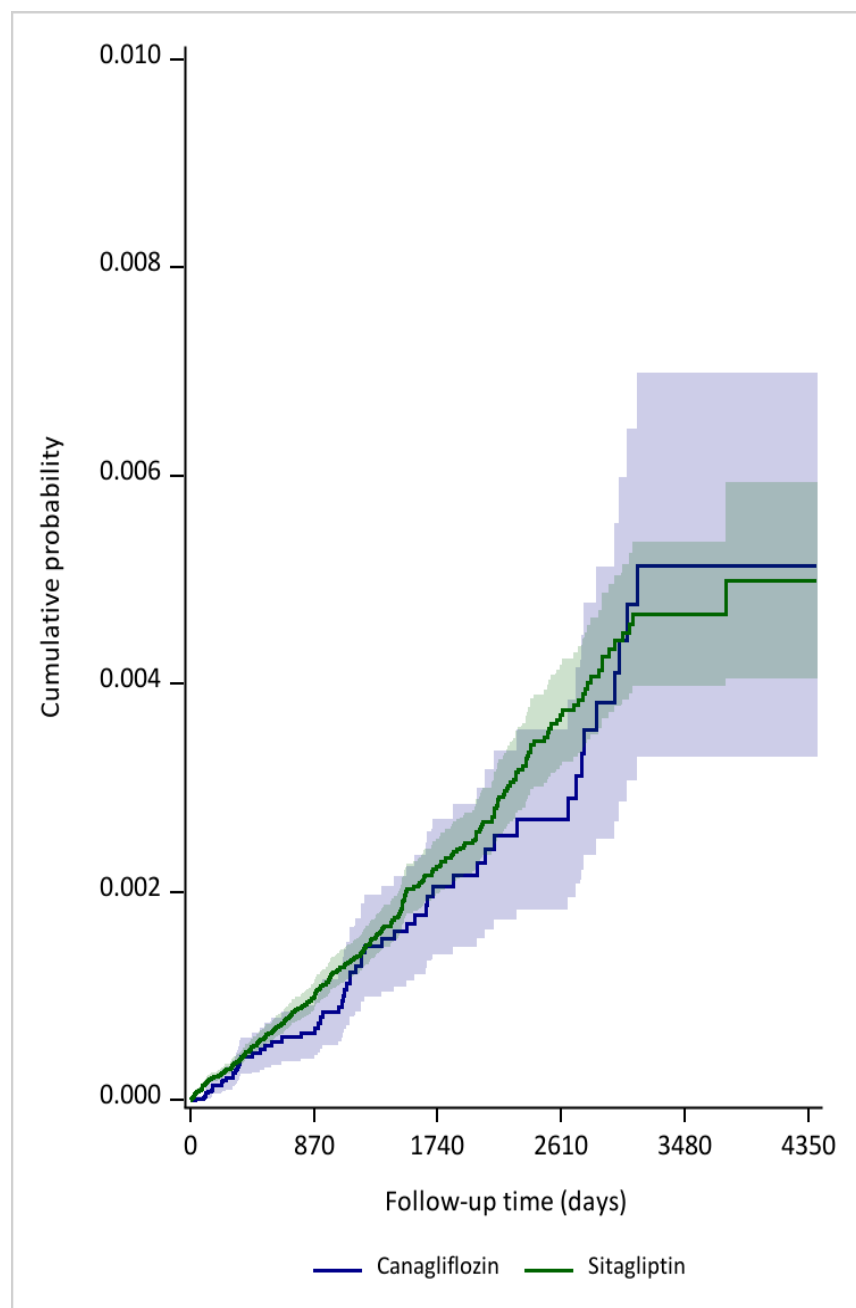


**Figure 3b. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

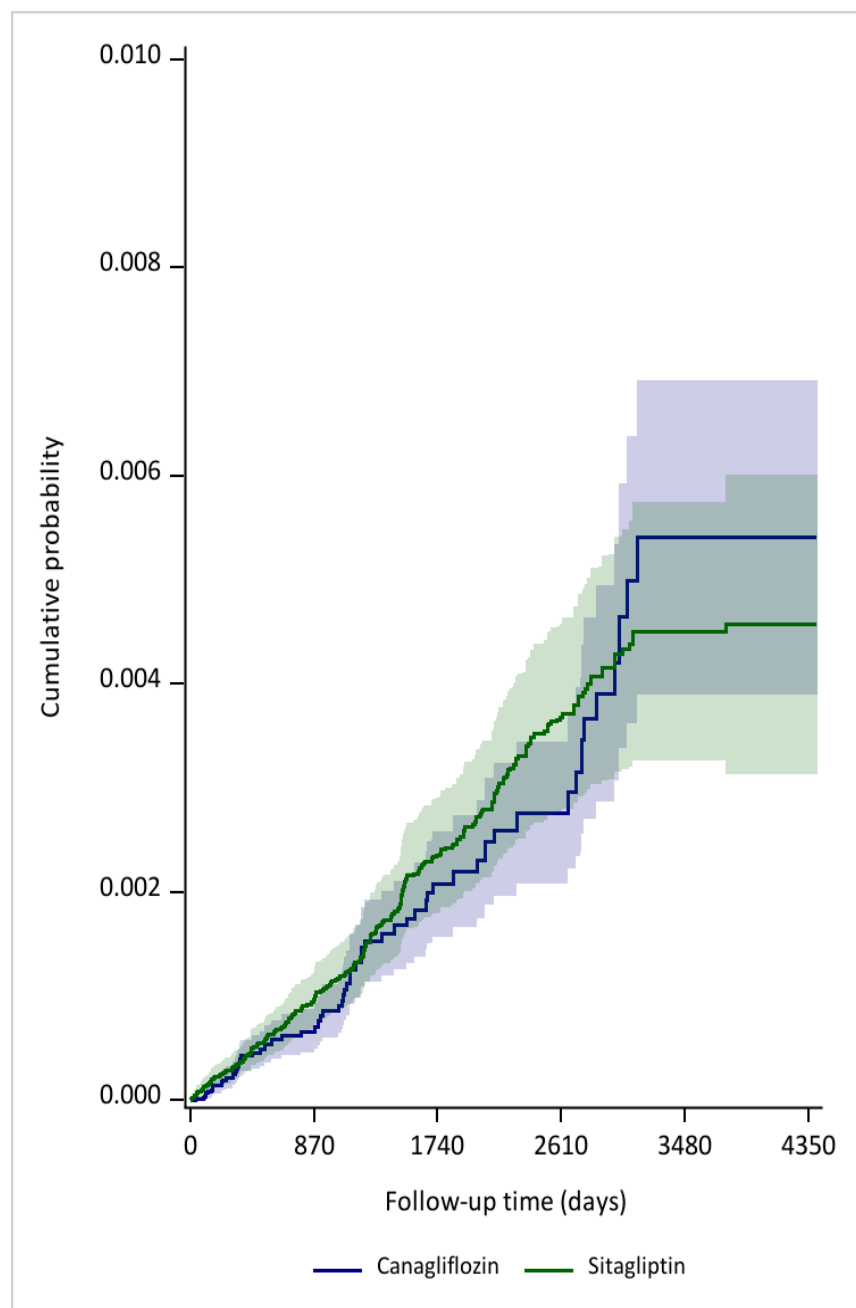




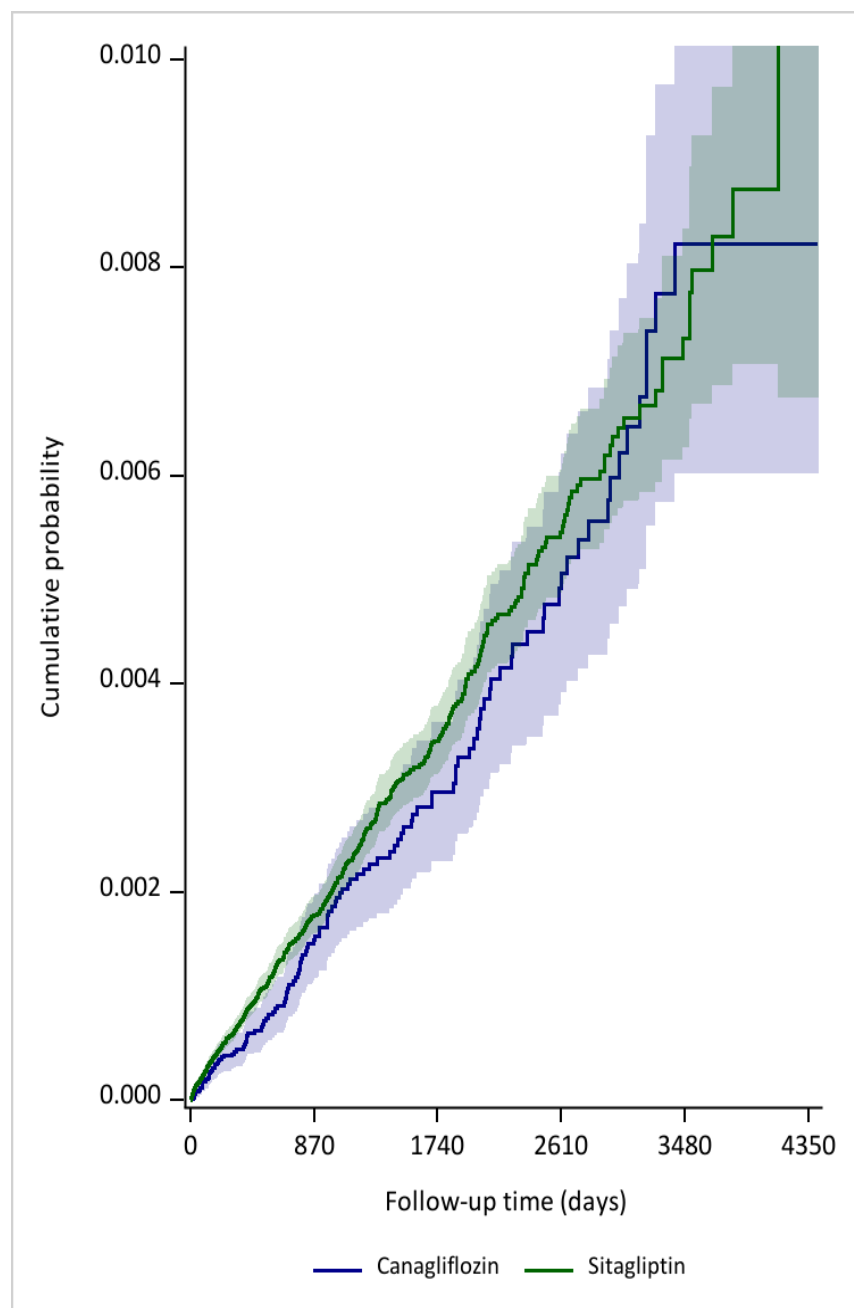
**Figure 3c. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Female**



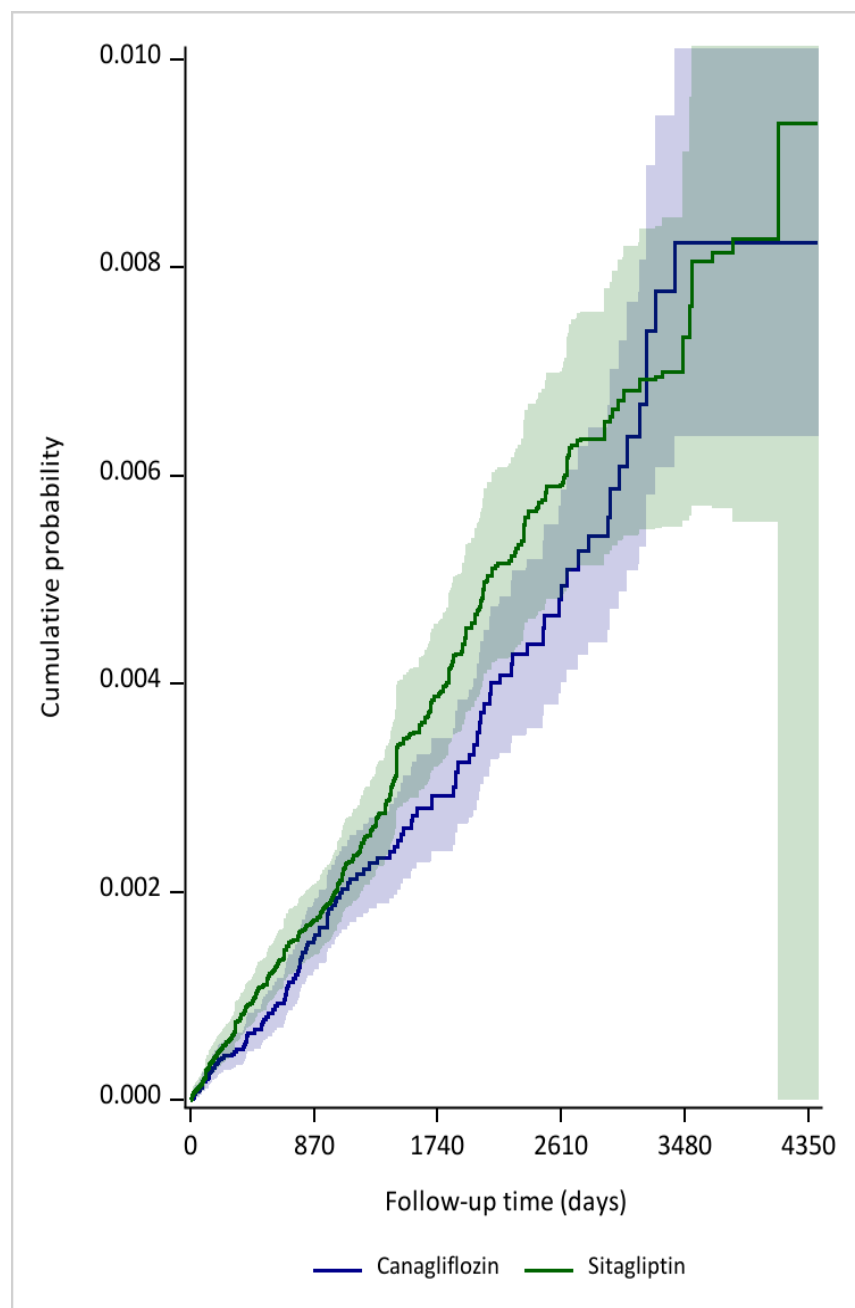
**Figure 3d. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Female**



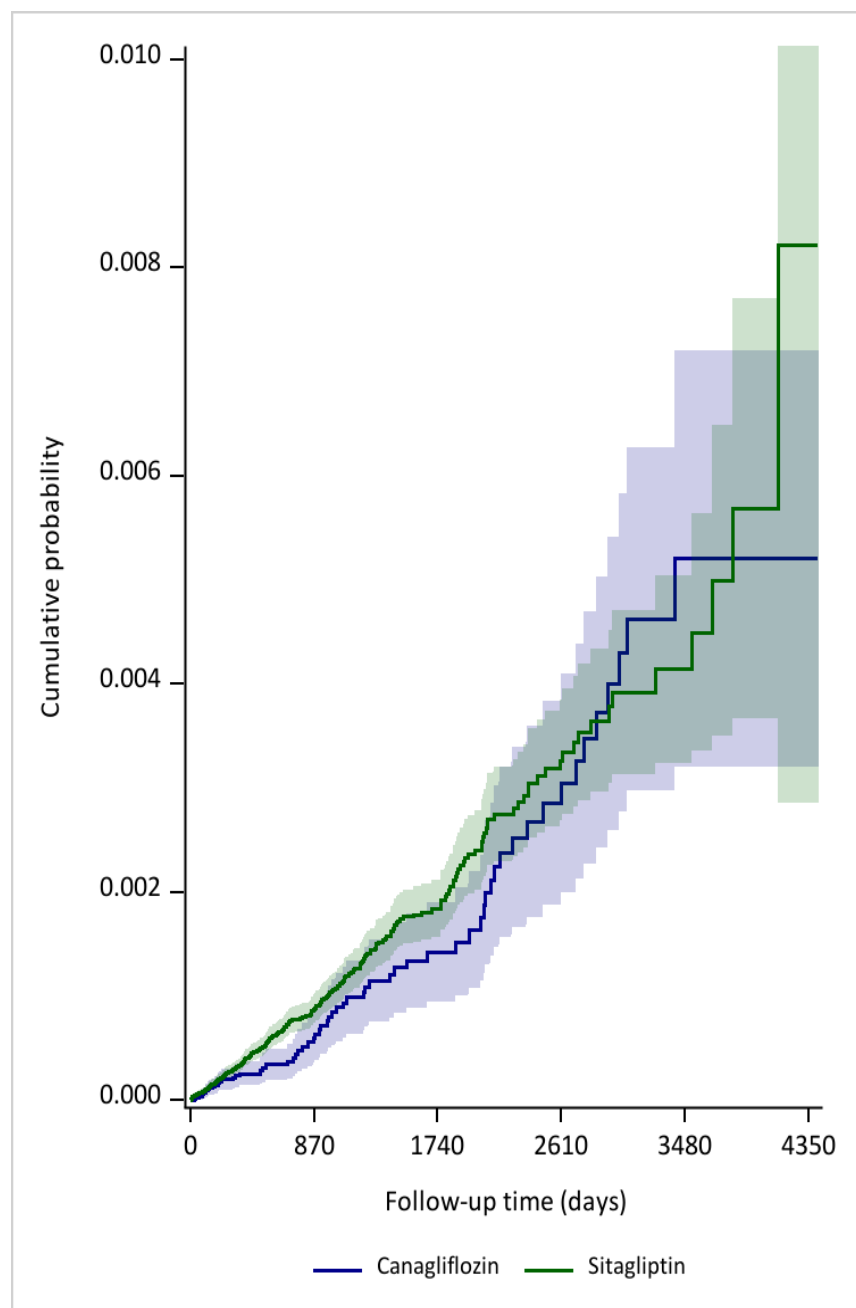
**Figure 3e. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Male**



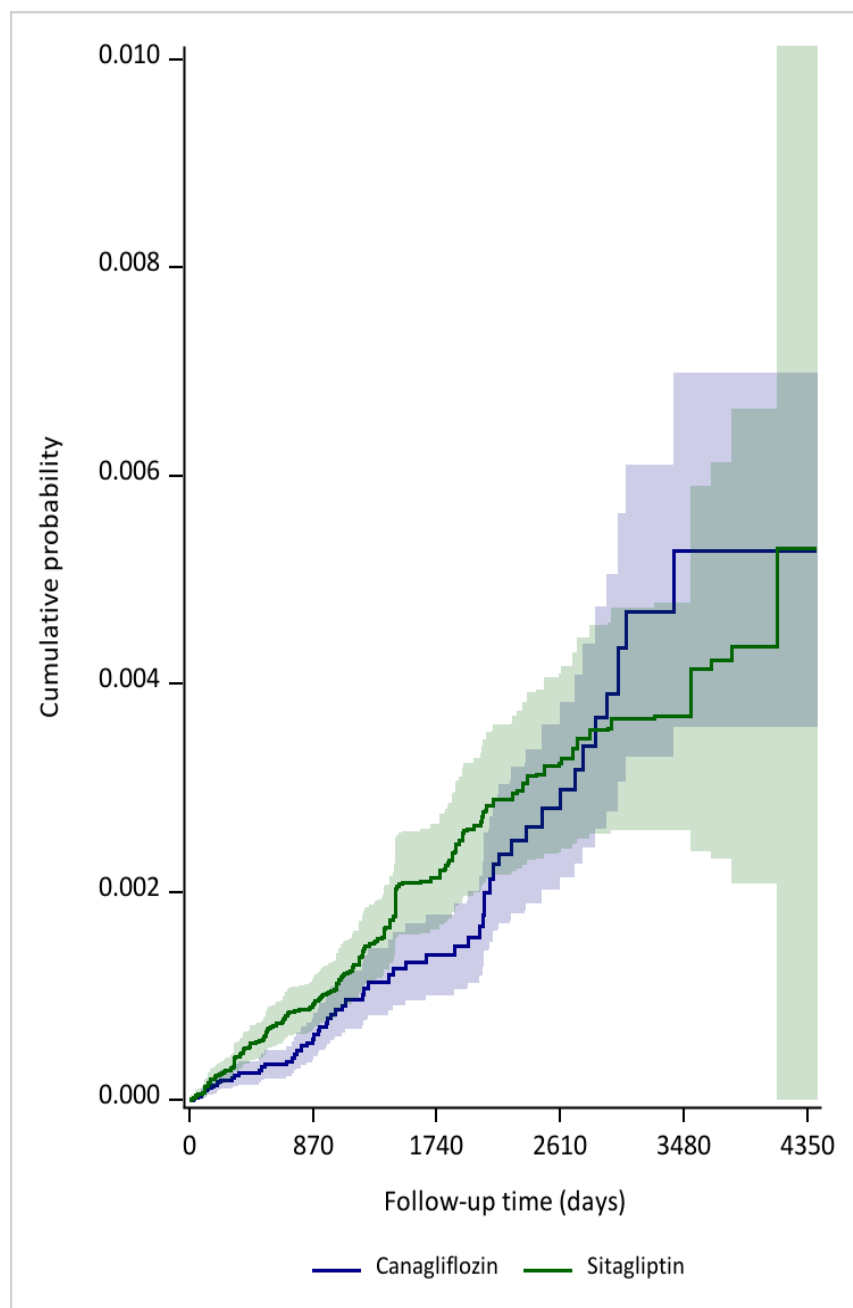
**Figure 3f. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Sex: Male**



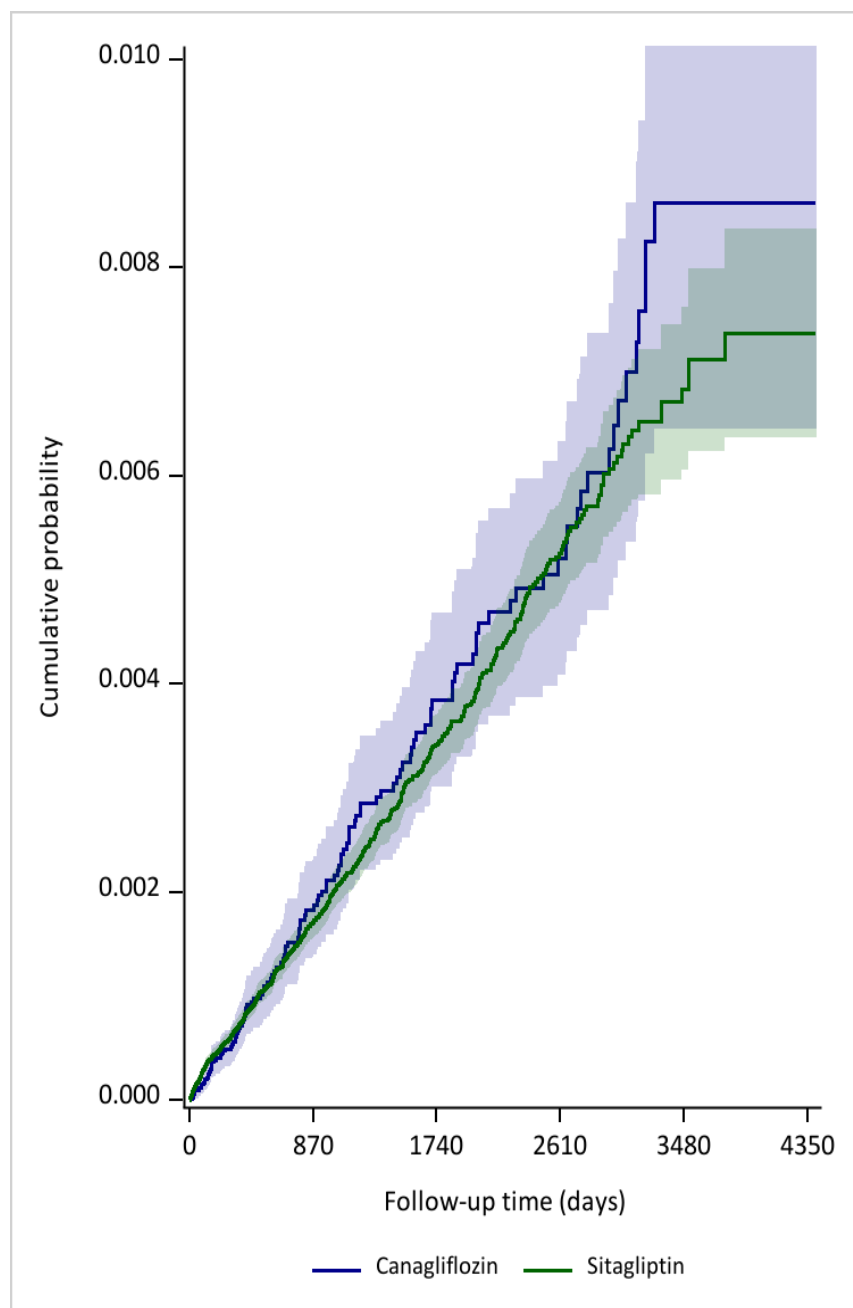
**Figure 3g. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age: <65 Years**



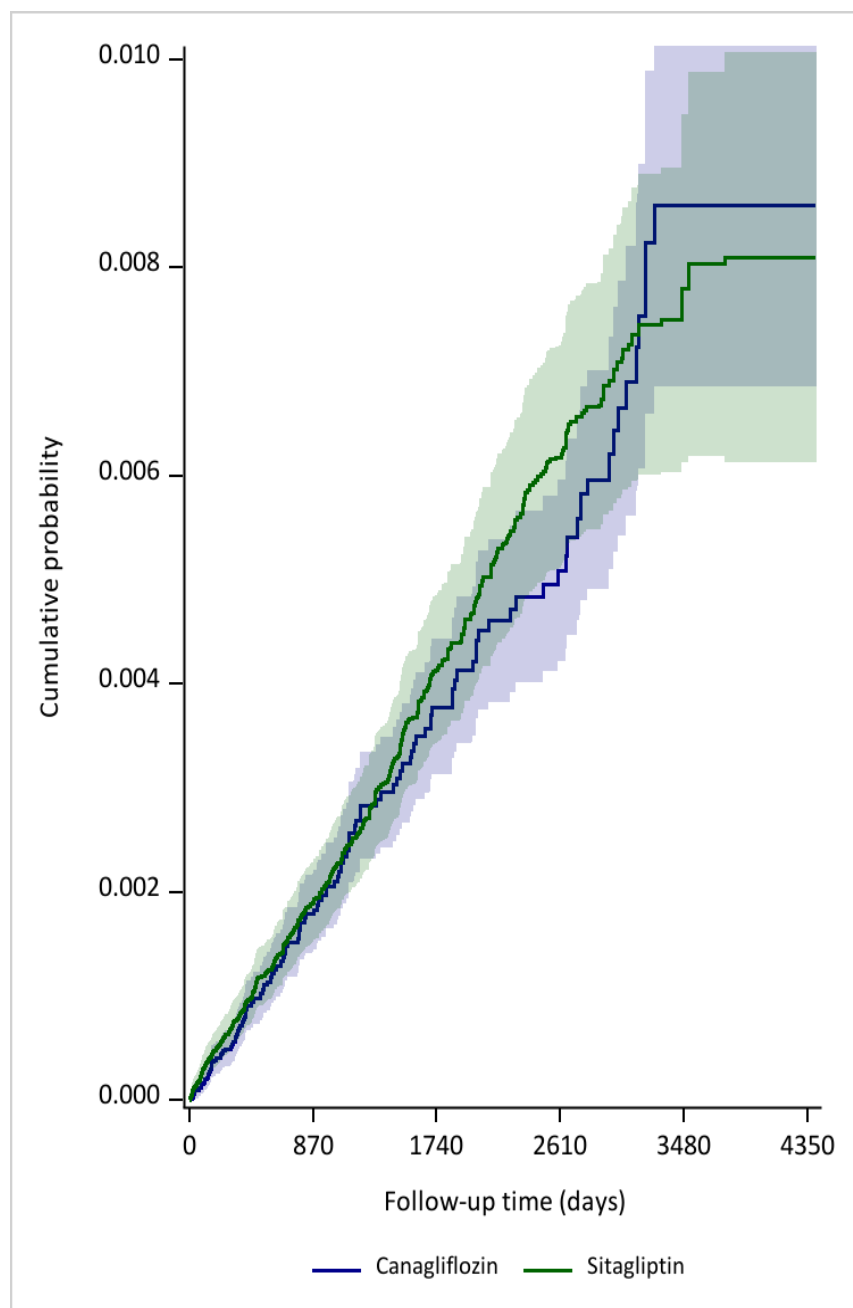
**Figure 3h. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age: <65 Years**



**Figure 3i. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age:  $\geq 65$  Years**

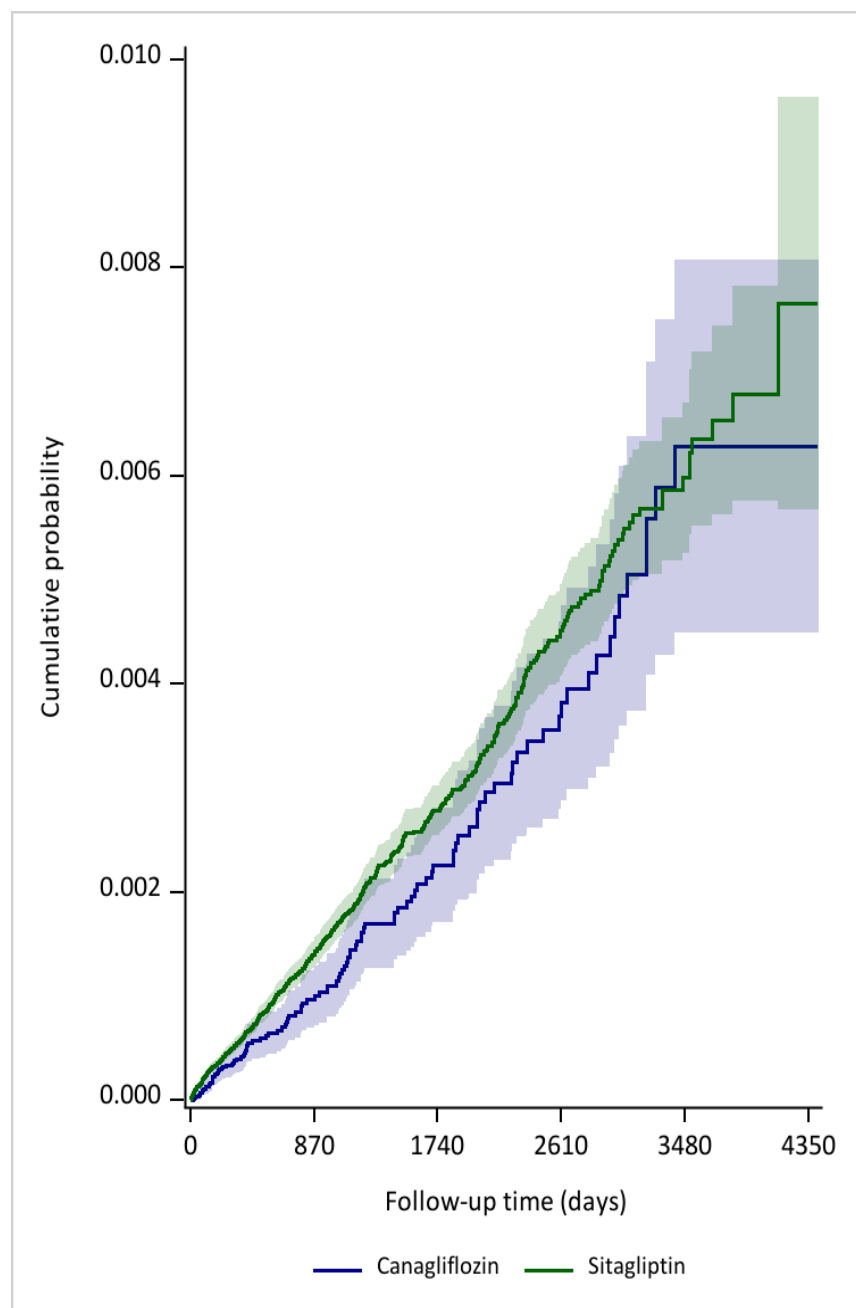


**Figure 3j. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Age:  $\geq 65$  Years**

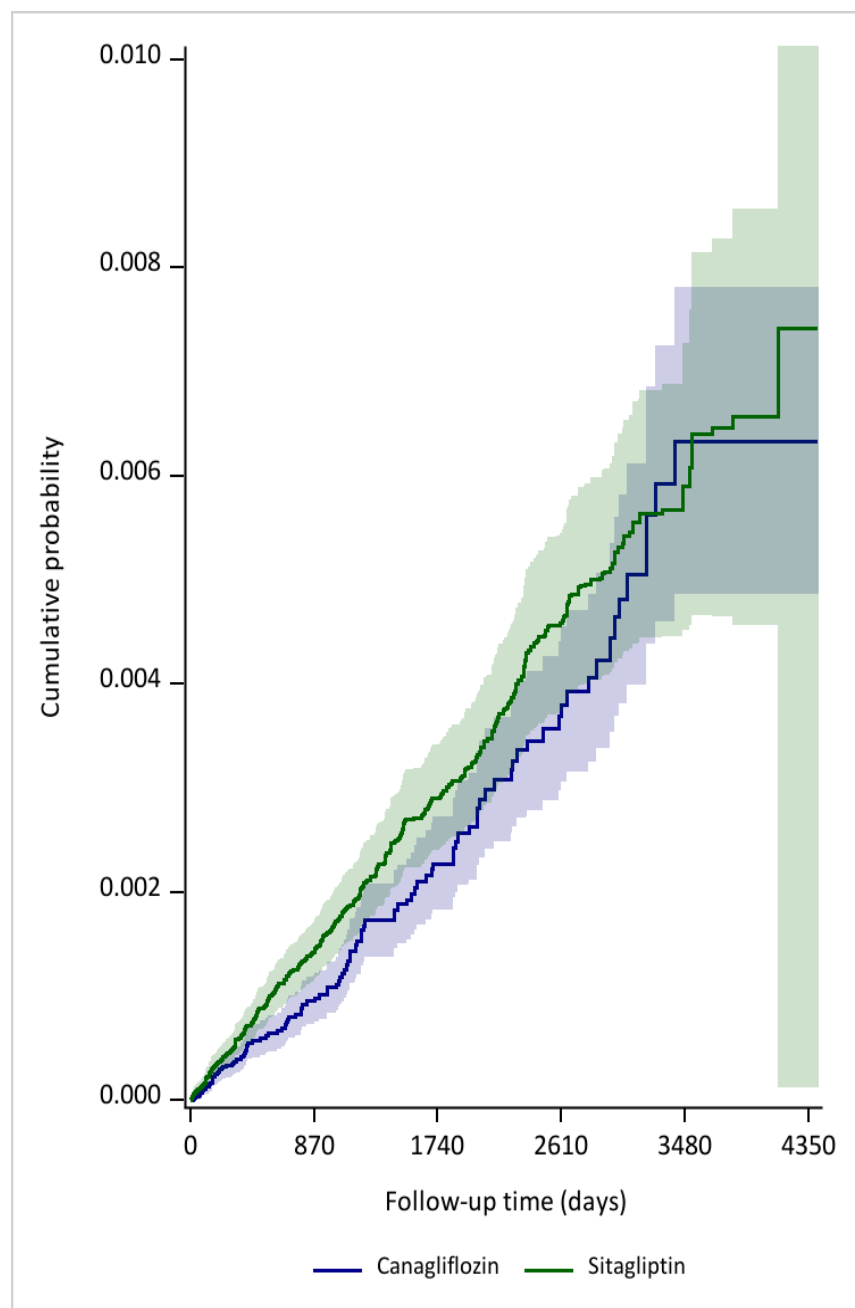




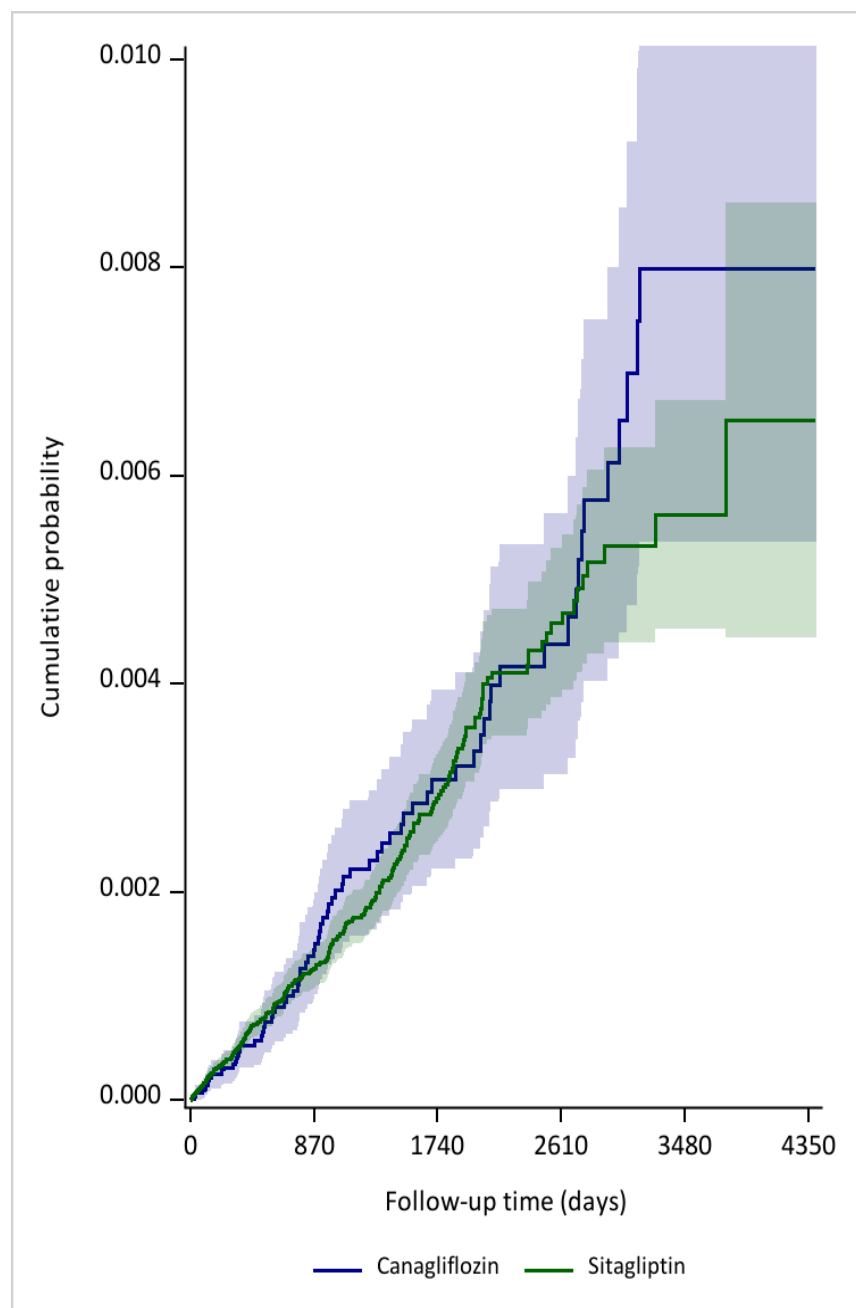
**Figure 3k. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; No Obesity**



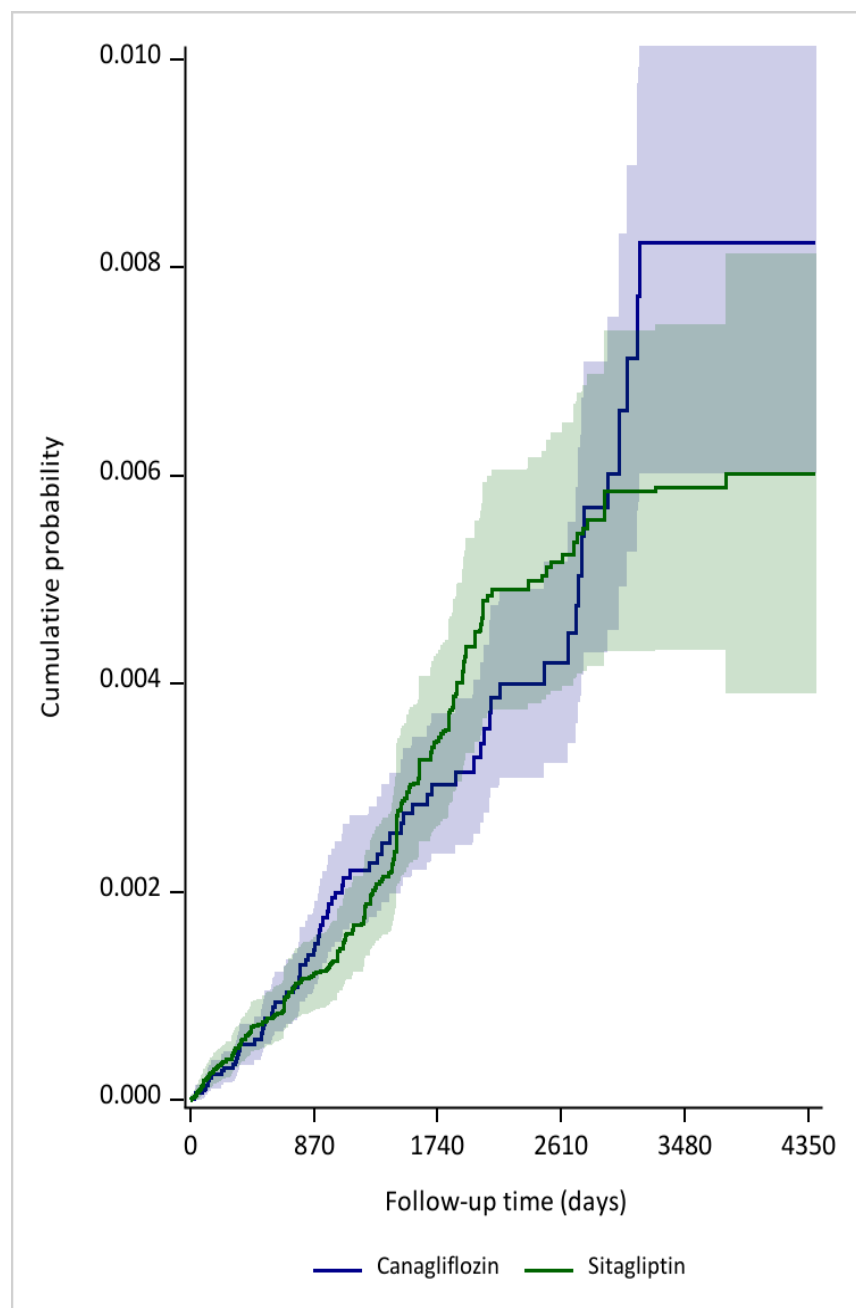
**Figure 3I. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; No Obesity**



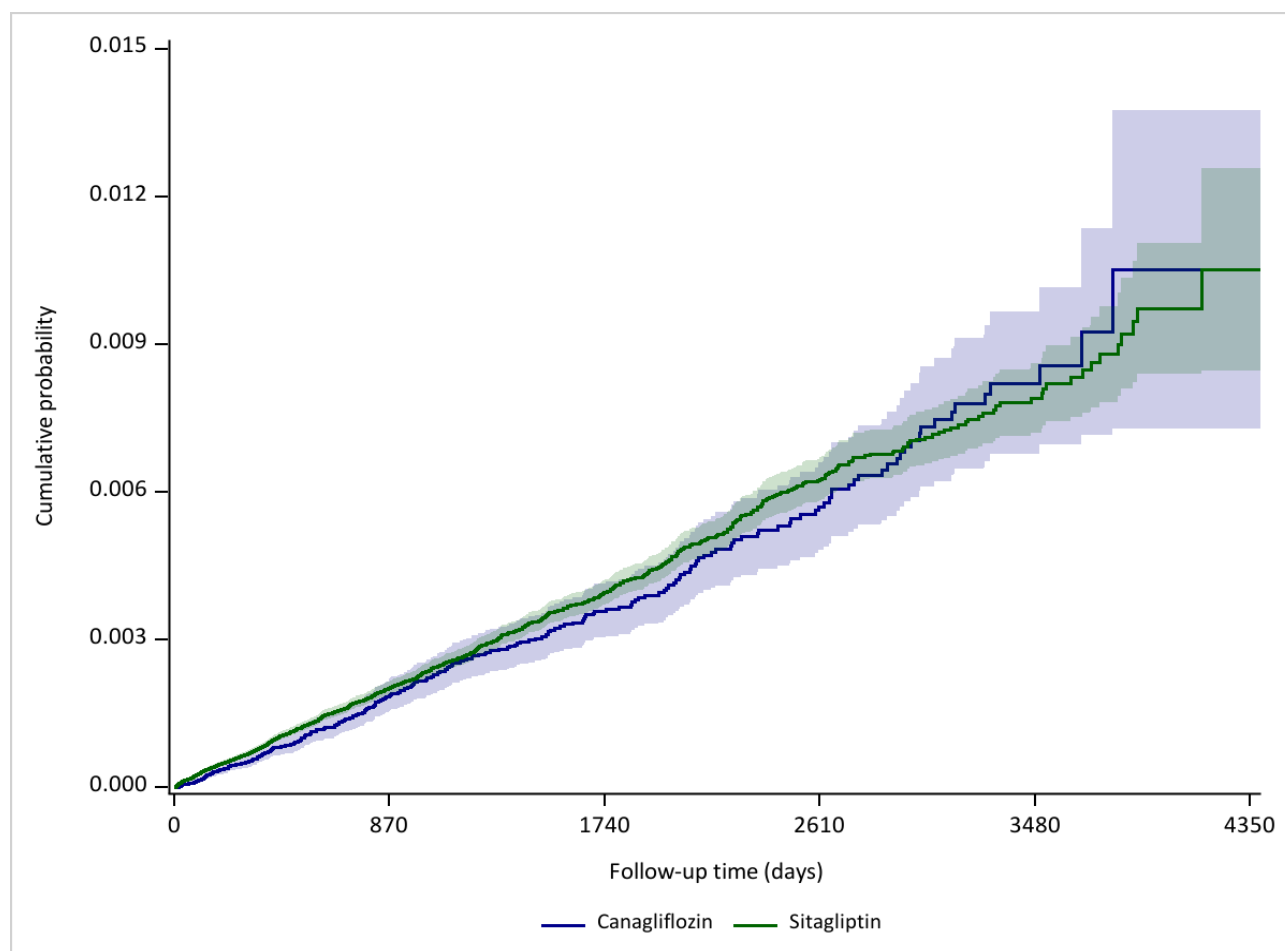
**Figure 3m. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Obesity**



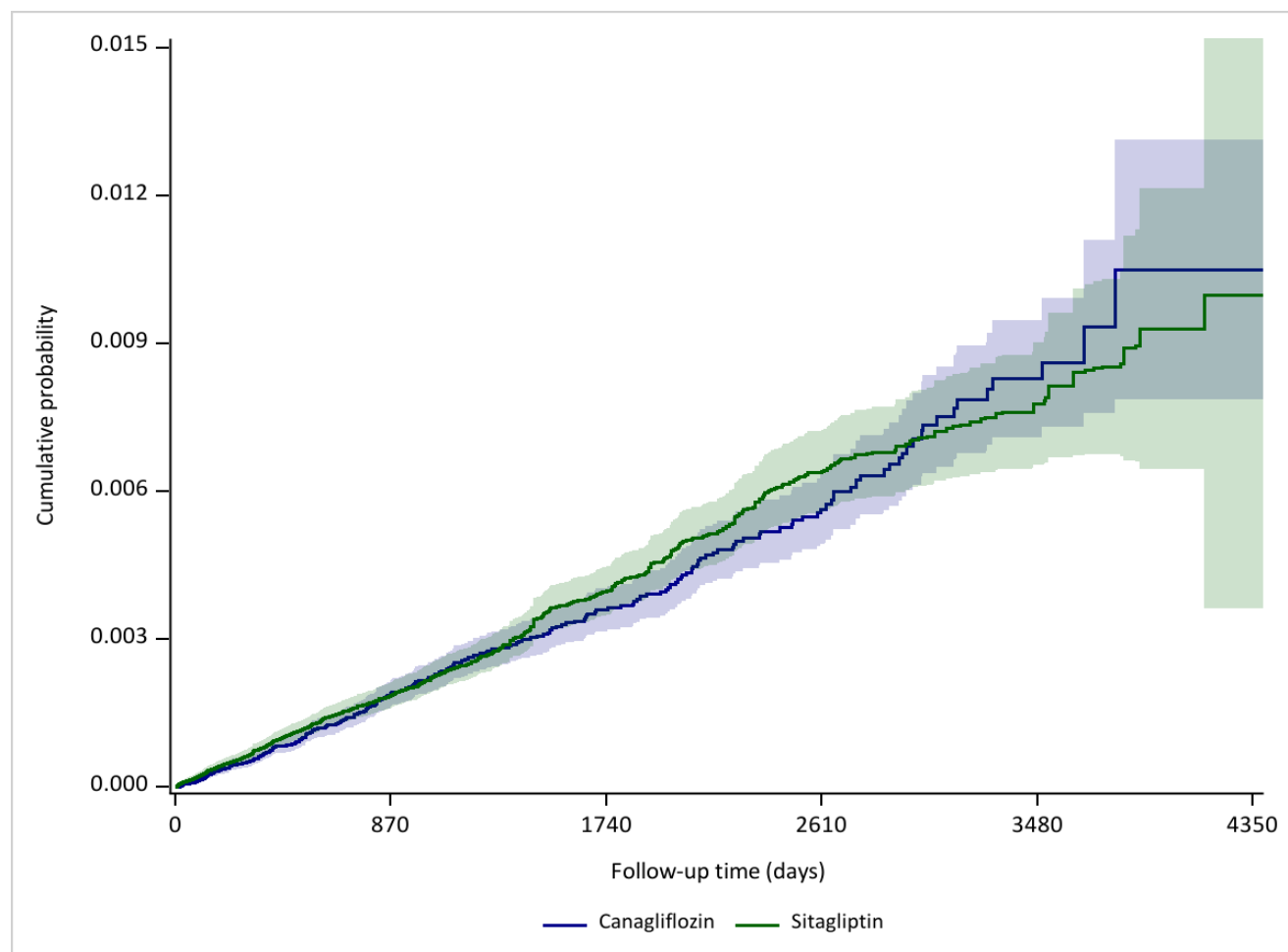
**Figure 3n. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025; Obesity**



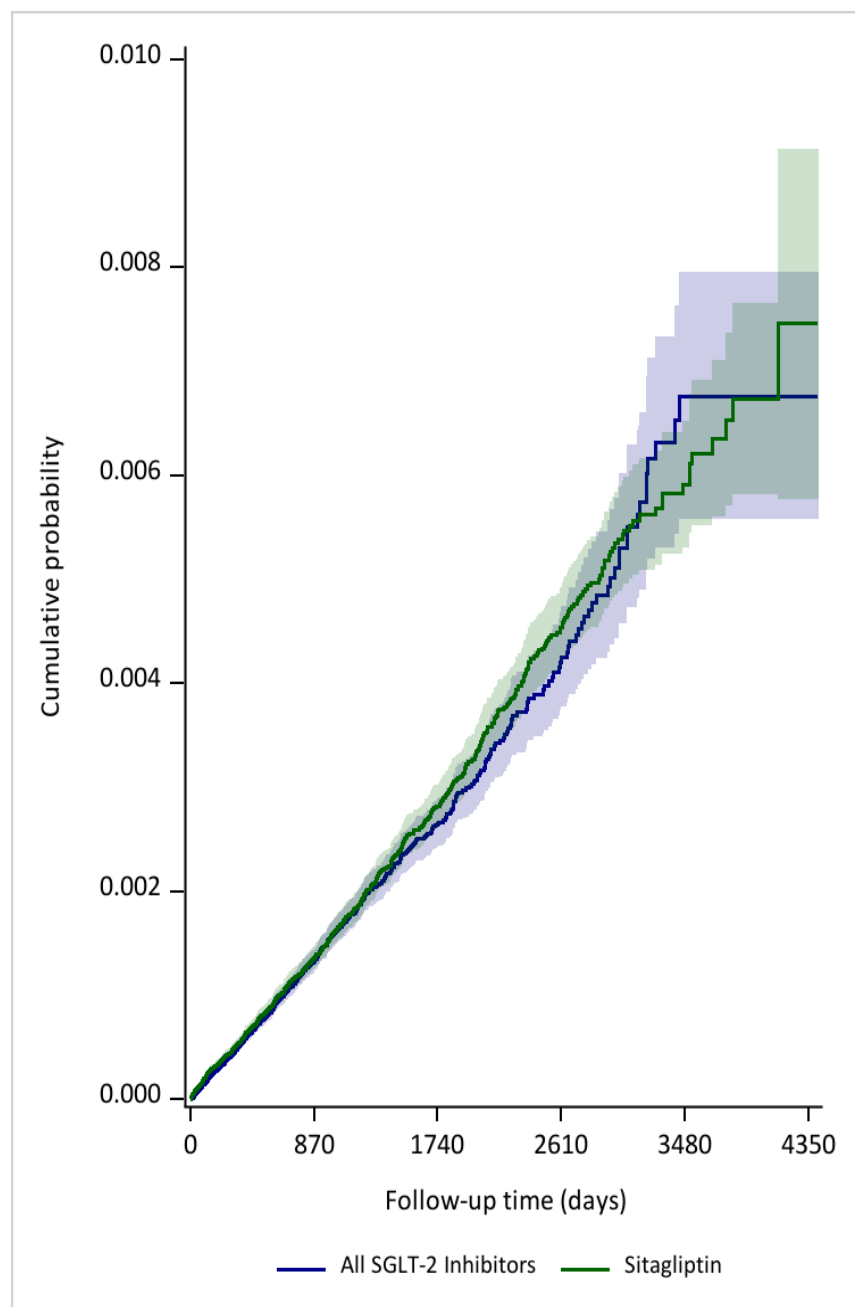
**Figure 4a. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**



**Figure 4b. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

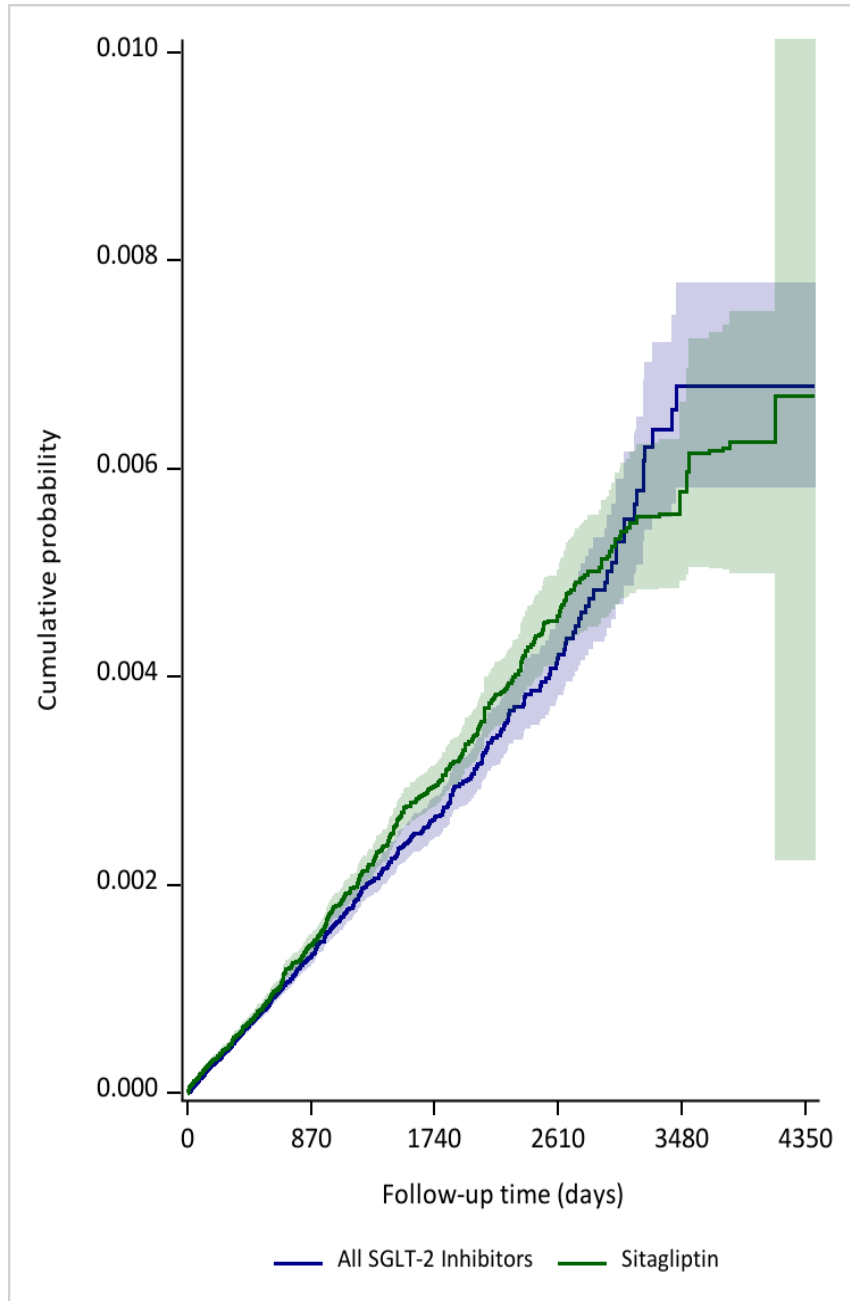


**Figure 5a. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**



*SGLT-2 = sodium-glucose cotransporter-2*

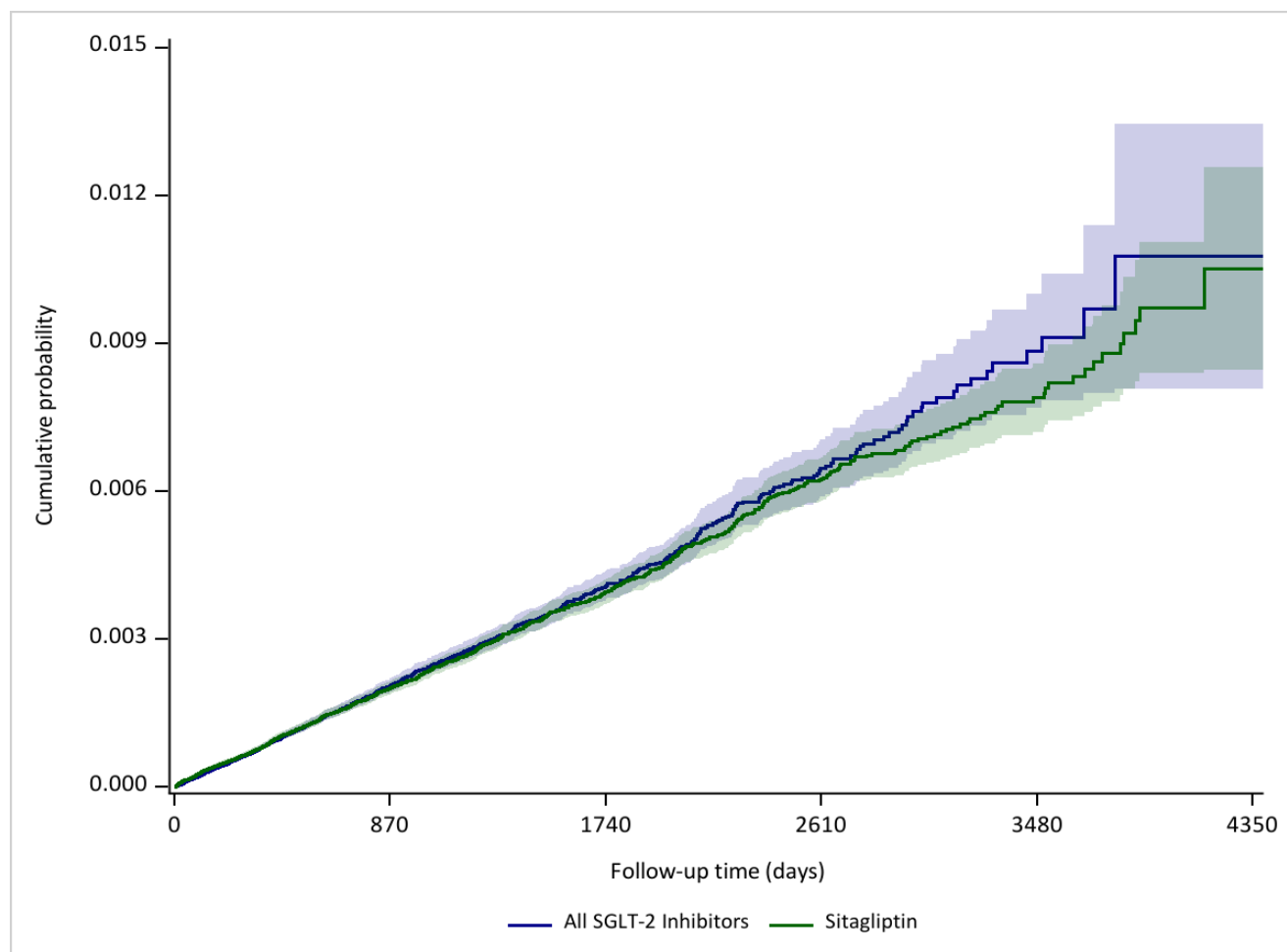
**Figure 5b. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**



*SGLT-2 = sodium-glucose cotransporter-2*

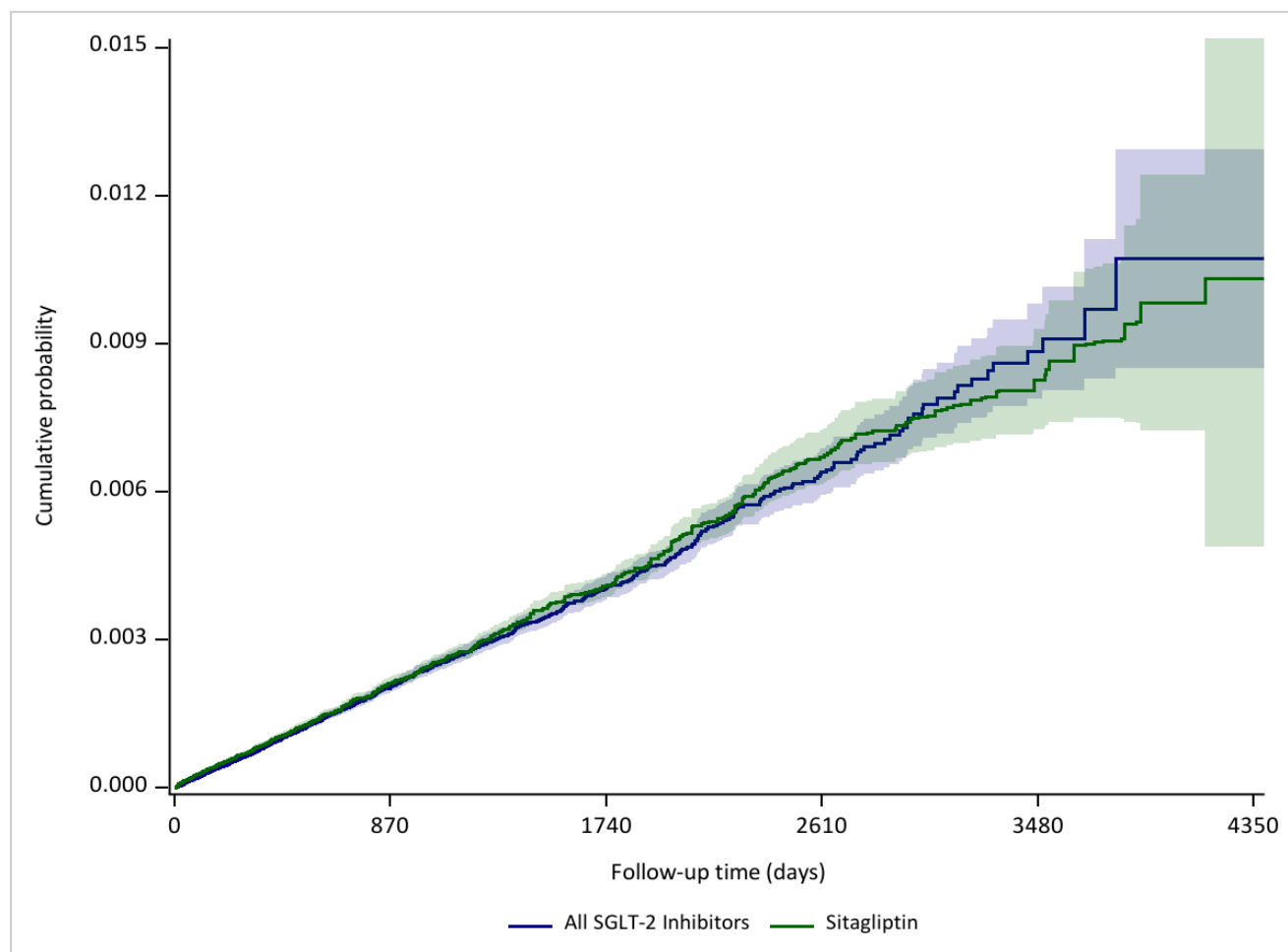


**Figure 6a. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population) in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**



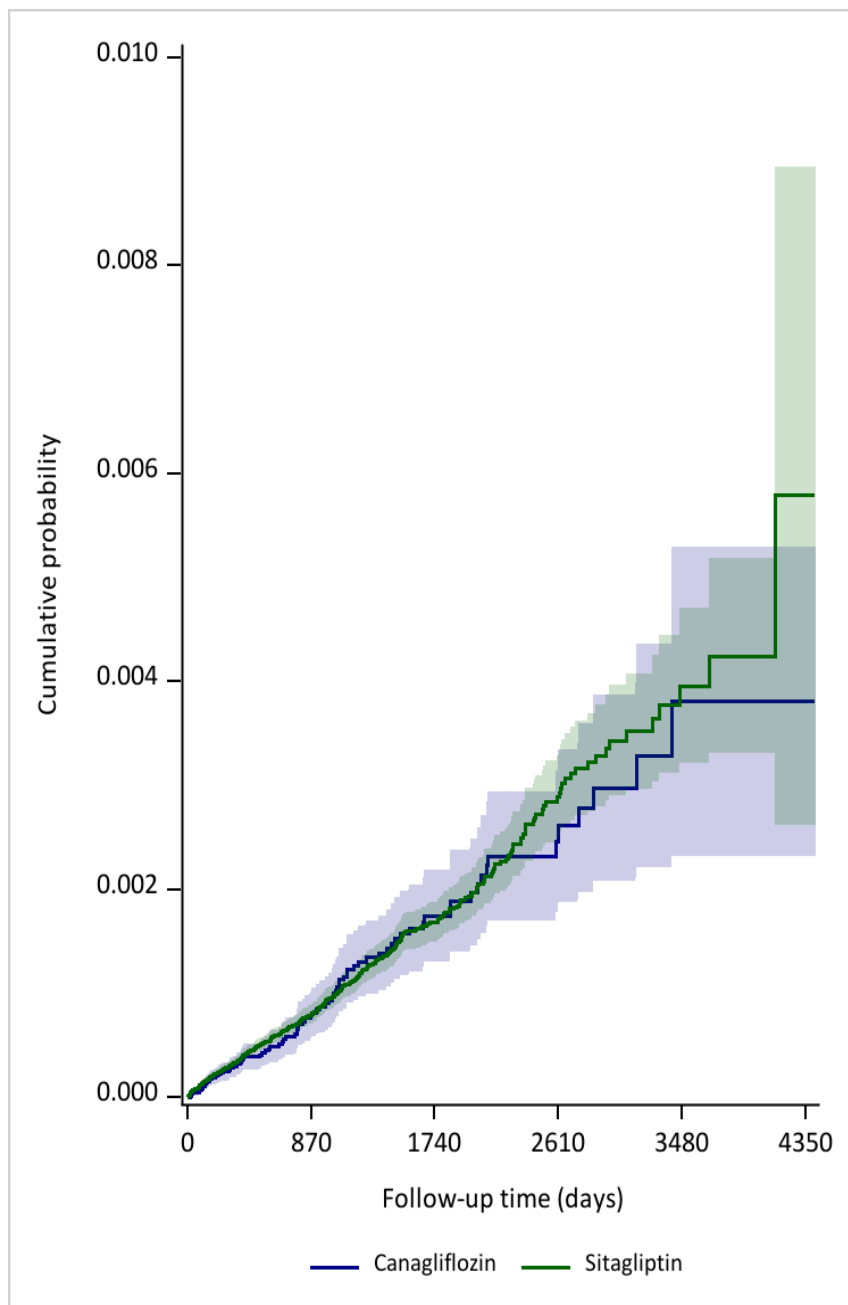
*SGLT-2 = sodium-glucose cotransporter-2*

**Figure 6b. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Broad Renal Cell Carcinoma (RCC) Among All Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

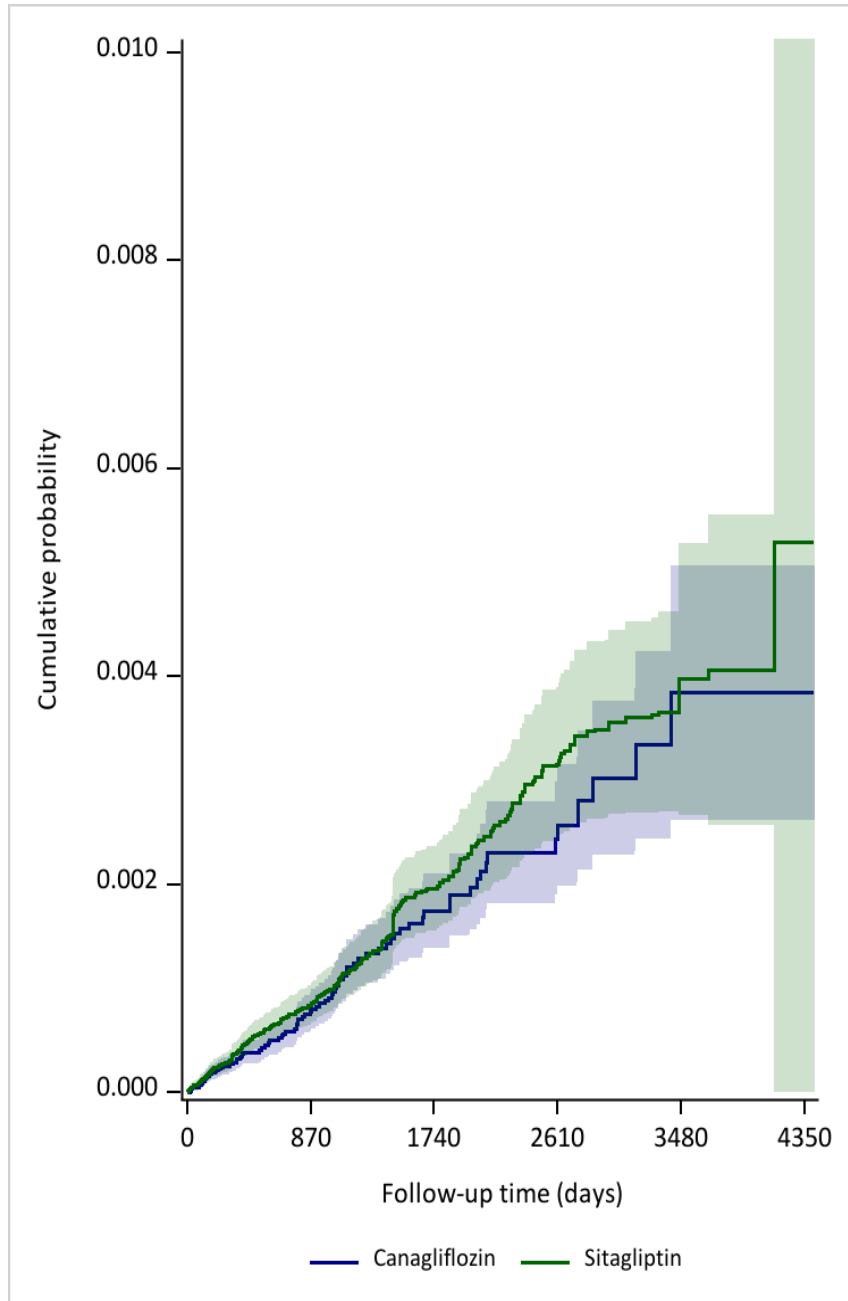


*SGLT-2 = sodium-glucose cotransporter-2*

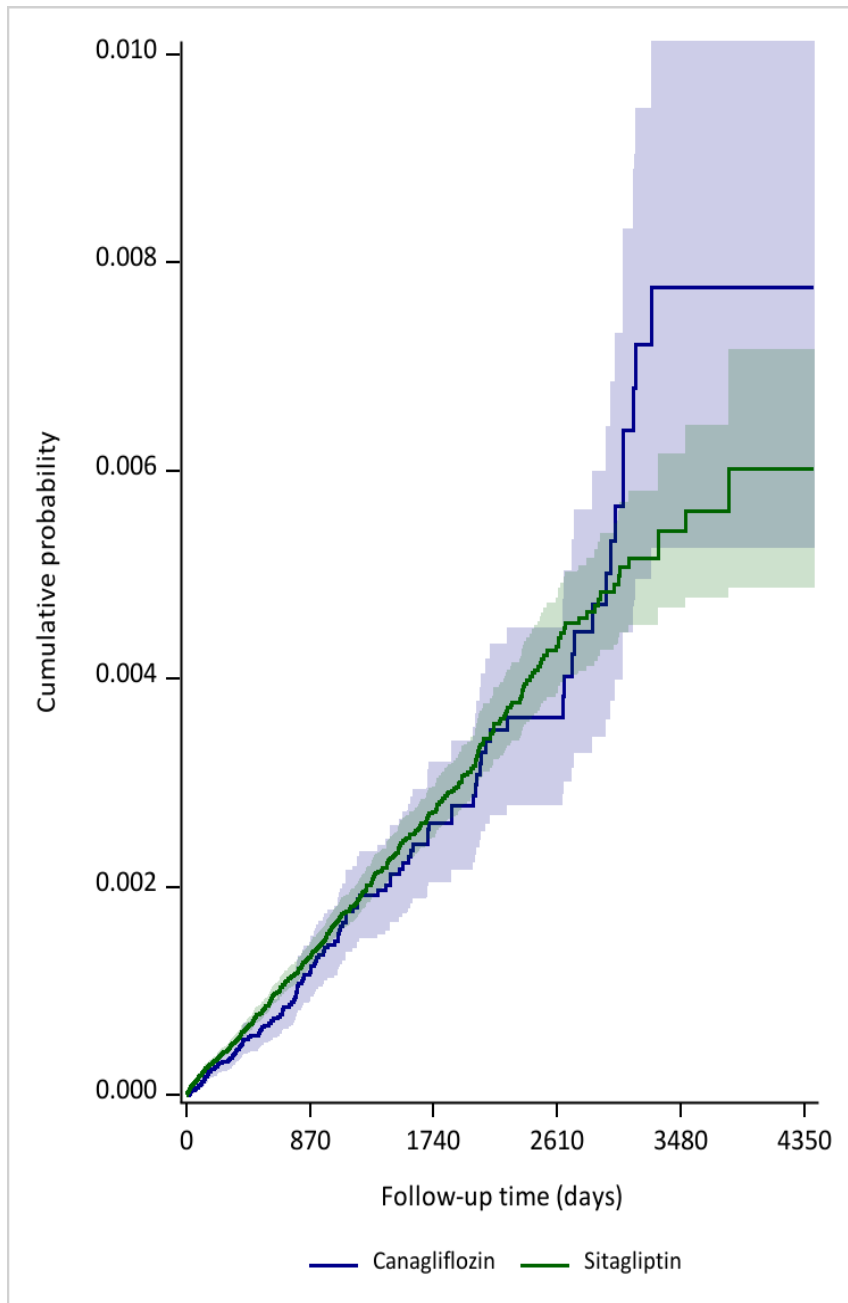
**Figure 7a. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population), Censoring at Non-RCC Malignancy, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**



**Figure 7b. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure, Censoring at Non-RCC Malignancy, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**

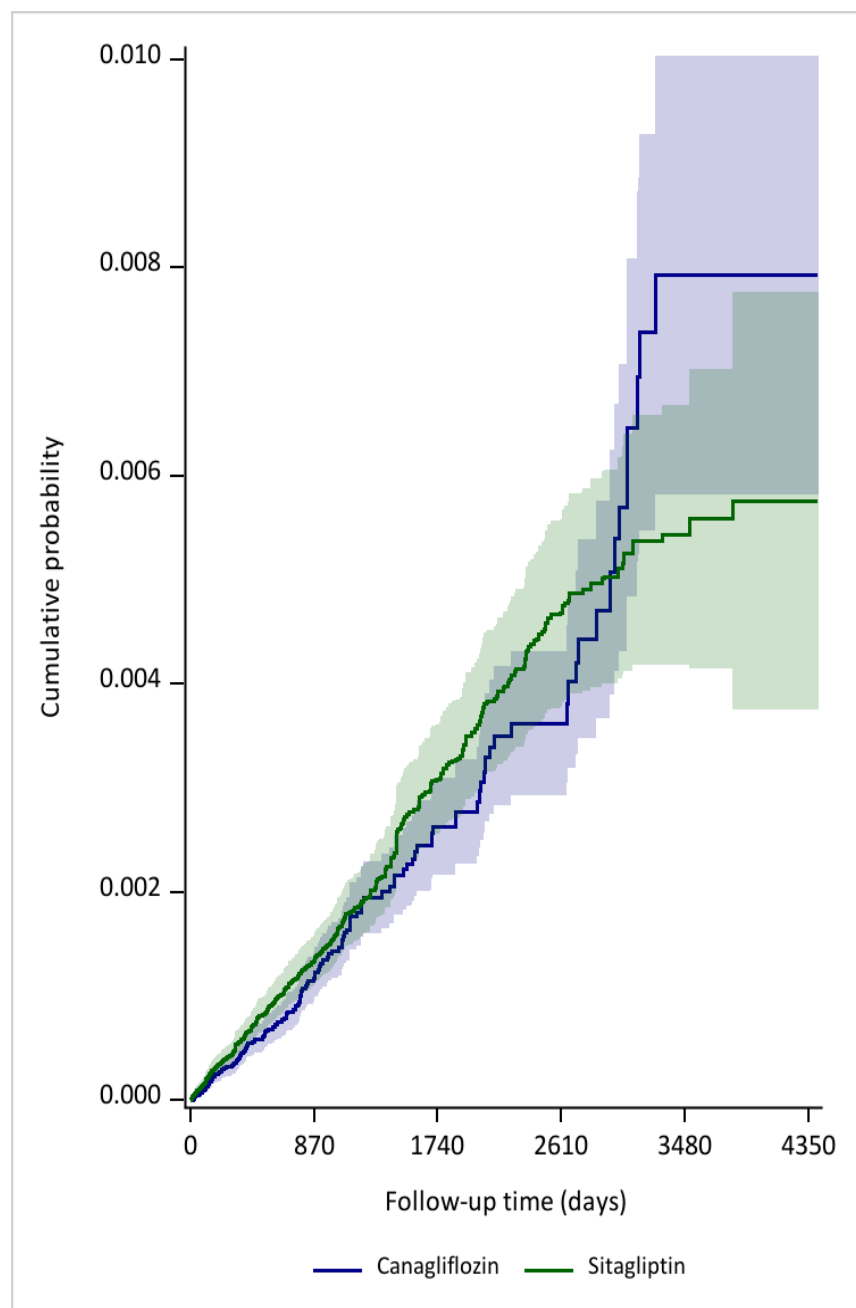


**Figure 8a. Aggregated Unweighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure (Trimmed Population), Censoring at Glucagon-Like Peptide-1 Receptor Agonist (GLP-1RA) or Insulin Initiation, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**



GLP-1RA = glucagon-like peptide-1 receptor agonists

**Figure 8b. Aggregated Inverse-Probability-of-Treatment and -Censoring Weighted Kaplan-Meier Risk Estimates and 95% Confidence Intervals of Narrow Renal Cell Carcinoma (RCC) Among Canagliflozin vs Sitagliptin Initiators with  $\geq 180$  Days of Exposure, Censoring at Glucagon-Like Peptide-1 Receptor Agonist (GLP-1RA) or Insulin Initiation, in the Sentinel Distributed Database (SDD) from March 1, 2013 to March 31, 2025**



GLP-1RA = glucagon-like peptide-1 receptor agonists

**Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (November 6, 2025)**

| DP ID | DP Start Date | DP End Date <sup>1</sup> |
|-------|---------------|--------------------------|
| DP01  | 01/01/2007    | 02/28/2025               |
| DP02  | 01/01/2006    | 01/31/2025               |
| DP03  | 01/01/2008    | 12/31/2024               |
| DP04  | 01/01/2014    | 12/31/2021               |
| DP05  | 01/01/2008    | 03/31/2025               |
| DP06  | 01/01/2010    | 12/31/2024               |

<sup>1</sup>End Date represents the earliest of: (1) query end date, or (2) last day of the most recent month for which all of a Data Partner's data tables (enrollment, dispensing, etc.) have at least 80% of the record count relative to the prior month.

**Appendix B. List of Generic and Brand Names of Medical Products Used to Define Exposures in this Request**

| Generic Name                                              | Brand Name                              |
|-----------------------------------------------------------|-----------------------------------------|
| <b>Canagliflozin</b>                                      |                                         |
| canagliflozin                                             | invokana                                |
| canagliflozin/metformin HCl                               | invokamet                               |
| canagliflozin/metformin HCl                               | invokamet XR                            |
| <b>Sitagliptin</b>                                        |                                         |
| sitagliptin                                               | januvia                                 |
| sitagliptin                                               | sitagliptin                             |
| sitagliptin                                               | zituvo                                  |
| sitagliptin and metformin hydrochloride                   | janumet                                 |
| sitagliptin and metformin hydrochloride                   | sitagliptin and metformin hydrochloride |
| sitagliptin and metformin hydrochloride                   | zitivimet                               |
| sitagliptin and metformin hydrochloride                   | zitivimet XR                            |
| sitagliptin hydrochloride oral                            | januvia                                 |
| sitagliptin phosphate                                     | januvia                                 |
| sitagliptin phosphate/metformin HCl                       | janumet                                 |
| sitagliptin phosphate/metformin HCl                       | janumet XR                              |
| sitagliptin phosphate/simvastatin                         | juvisync                                |
| <b>Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors</b> |                                         |
| bexagliflozin                                             | bexagliflozin                           |
| bexagliflozin                                             | brenzavvy                               |
| canagliflozin                                             | invokana                                |
| canagliflozin/metformin HCl                               | invokamet                               |
| canagliflozin/metformin HCl                               | invokamet XR                            |
| dapagliflozin                                             | xigduo                                  |
| dapagliflozin and metformin hydrochloride                 | farxiga                                 |
| dapagliflozin propanediol                                 | dapagliflozin propanediol               |
| dapagliflozin propanediol                                 | farxiga                                 |
| dapagliflozin propanediol/metformin HCl                   | dapaglifloz propaned-metformin          |
| dapagliflozin propanediol/metformin HCl                   | xigduo XR                               |
| empagliflozin                                             | jardiance                               |
| empagliflozin                                             | trijardy xr                             |
| empagliflozin and metformin hydrochloride                 | jardiance                               |
| empagliflozin/metformin HCl                               | synjardy                                |
| empagliflozin/metformin HCl                               | synjardy xr                             |
| ertugliflozin                                             | steglatro                               |
| ertugliflozin and metformin hydrochloride                 | segluromet                              |
| ertugliflozin pidolate                                    | steglatro                               |
| ertugliflozin pidolate/metformin HCl                      | segluromet                              |



**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code                                            | Description                                                                                   | Code Category | Code Type |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------|-----------|
| <b>Renal Cell Carcinoma - Broad Definition</b>  |                                                                                               |               |           |
| 189                                             | Malignant neoplasm of kidney and other and unspecified urinary organs                         | Diagnosis     | ICD-9-CM  |
| 189.0                                           | Malignant neoplasm of kidney, except pelvis                                                   | Diagnosis     | ICD-9-CM  |
| 198.0                                           | Secondary malignant neoplasm of kidney                                                        | Diagnosis     | ICD-9-CM  |
| C64                                             | Malignant neoplasm of kidney, except renal pelvis                                             | Diagnosis     | ICD-10-CM |
| C64.1                                           | Malignant neoplasm of right kidney, except renal pelvis                                       | Diagnosis     | ICD-10-CM |
| C64.2                                           | Malignant neoplasm of left kidney, except renal pelvis                                        | Diagnosis     | ICD-10-CM |
| C64.9                                           | Malignant neoplasm of unspecified kidney, except renal pelvis                                 | Diagnosis     | ICD-10-CM |
| C79.0                                           | Secondary malignant neoplasm of kidney and renal pelvis                                       | Diagnosis     | ICD-10-CM |
| C79.00                                          | Secondary malignant neoplasm of unspecified kidney and renal pelvis                           | Diagnosis     | ICD-10-CM |
| C79.01                                          | Secondary malignant neoplasm of right kidney and renal pelvis                                 | Diagnosis     | ICD-10-CM |
| C79.02                                          | Secondary malignant neoplasm of left kidney and renal pelvis                                  | Diagnosis     | ICD-10-CM |
| <b>Renal Cell Carcinoma - Narrow Definition</b> |                                                                                               |               |           |
| <b>Early-Stage Renal Cell Carcinoma</b>         |                                                                                               |               |           |
| 189                                             | Malignant neoplasm of kidney and other and unspecified urinary organs                         | Diagnosis     | ICD-9-CM  |
| 189.0                                           | Malignant neoplasm of kidney, except pelvis                                                   | Diagnosis     | ICD-9-CM  |
| C64                                             | Malignant neoplasm of kidney, except renal pelvis                                             | Diagnosis     | ICD-10-CM |
| C64.1                                           | Malignant neoplasm of right kidney, except renal pelvis                                       | Diagnosis     | ICD-10-CM |
| C64.2                                           | Malignant neoplasm of left kidney, except renal pelvis                                        | Diagnosis     | ICD-10-CM |
| C64.9                                           | Malignant neoplasm of unspecified kidney, except renal pelvis                                 | Diagnosis     | ICD-10-CM |
| <b>Late-Stage Renal Cell Carcinoma</b>          |                                                                                               |               |           |
| 196.0                                           | Secondary and unspecified malignant neoplasm of lymph nodes of head, face, and                | Diagnosis     | ICD-9-CM  |
| 196.1                                           | Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes                     | Diagnosis     | ICD-9-CM  |
| 196.2                                           | Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes                   | Diagnosis     | ICD-9-CM  |
| 196.3                                           | Secondary and unspecified malignant neoplasm of lymph nodes of axilla and upper               | Diagnosis     | ICD-9-CM  |
| 196.5                                           | Secondary and unspecified malignant neoplasm of lymph nodes of inguinal region and lower limb | Diagnosis     | ICD-9-CM  |
| 196.6                                           | Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes                       | Diagnosis     | ICD-9-CM  |
| 196.8                                           | Secondary and unspecified malignant neoplasm of lymph nodes of multiple sites                 | Diagnosis     | ICD-9-CM  |
| 196.9                                           | Secondary and unspecified malignant neoplasm of lymph nodes, site unspecified                 | Diagnosis     | ICD-9-CM  |
| 197.0                                           | Secondary malignant neoplasm of lung                                                          | Diagnosis     | ICD-9-CM  |
| 197.1                                           | Secondary malignant neoplasm of mediastinum                                                   | Diagnosis     | ICD-9-CM  |
| 197.2                                           | Secondary malignant neoplasm of pleura                                                        | Diagnosis     | ICD-9-CM  |
| 197.3                                           | Secondary malignant neoplasm of other respiratory organs                                      | Diagnosis     | ICD-9-CM  |
| 197.4                                           | Secondary malignant neoplasm of small intestine including duodenum                            | Diagnosis     | ICD-9-CM  |
| 197.5                                           | Secondary malignant neoplasm of large intestine and rectum                                    | Diagnosis     | ICD-9-CM  |
| 197.6                                           | Secondary malignant neoplasm of retroperitoneum and peritoneum                                | Diagnosis     | ICD-9-CM  |
| 197.7                                           | Secondary malignant neoplasm of liver                                                         | Diagnosis     | ICD-9-CM  |
| 197.8                                           | Secondary malignant neoplasm of other digestive organs and spleen                             | Diagnosis     | ICD-9-CM  |
| 198.0                                           | Secondary malignant neoplasm of kidney                                                        | Diagnosis     | ICD-9-CM  |
| 198.1                                           | Secondary malignant neoplasm of other urinary organs                                          | Diagnosis     | ICD-9-CM  |
| 198.2                                           | Secondary malignant neoplasm of skin                                                          | Diagnosis     | ICD-9-CM  |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b> | <b>Description</b>                                                                 | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------|----------------------|------------------|
| 198.3       | Secondary malignant neoplasm of brain and spinal cord                              | Diagnosis            | ICD-9-CM         |
| 198.4       | Secondary malignant neoplasm of other parts of nervous system                      | Diagnosis            | ICD-9-CM         |
| 198.5       | Secondary malignant neoplasm of bone and bone marrow                               | Diagnosis            | ICD-9-CM         |
| 198.6       | Secondary malignant neoplasm of ovary                                              | Diagnosis            | ICD-9-CM         |
| 198.7       | Secondary malignant neoplasm of adrenal gland                                      | Diagnosis            | ICD-9-CM         |
| 198.8       | Secondary malignant neoplasm of other specified sites                              | Diagnosis            | ICD-9-CM         |
| 198.81      | Secondary malignant neoplasm of breast                                             | Diagnosis            | ICD-9-CM         |
| 198.82      | Secondary malignant neoplasm of genital organs                                     | Diagnosis            | ICD-9-CM         |
| 198.89      | Secondary malignant neoplasm of other specified sites                              | Diagnosis            | ICD-9-CM         |
| 199.0       | Disseminated malignant neoplasm                                                    | Diagnosis            | ICD-9-CM         |
| 199.1       | Other malignant neoplasm of unspecified site                                       | Diagnosis            | ICD-9-CM         |
| C77.0       | Secondary and unspecified malignant neoplasm of lymph nodes of head, face and neck | Diagnosis            | ICD-9-CM         |
| C77.1       | Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes          | Diagnosis            | ICD-10-CM        |
| C77.2       | Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes        | Diagnosis            | ICD-10-CM        |
| C77.3       | Secondary and unspecified malignant neoplasm of axilla and upper limb lymph nodes  | Diagnosis            | ICD-10-CM        |
| C77.4       | Secondary and unspecified malignant neoplasm of inguinal and lower limb lymph      | Diagnosis            | ICD-10-CM        |
| C77.5       | Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes            | Diagnosis            | ICD-10-CM        |
| C77.8       | Secondary and unspecified malignant neoplasm of lymph nodes of multiple regions    | Diagnosis            | ICD-10-CM        |
| C77.9       | Secondary and unspecified malignant neoplasm of lymph node, unspecified            | Diagnosis            | ICD-10-CM        |
| C78.00      | Secondary malignant neoplasm of unspecified lung                                   | Diagnosis            | ICD-10-CM        |
| C78.01      | Secondary malignant neoplasm of right lung                                         | Diagnosis            | ICD-10-CM        |
| C78.02      | Secondary malignant neoplasm of left lung                                          | Diagnosis            | ICD-10-CM        |
| C78.1       | Secondary malignant neoplasm of mediastinum                                        | Diagnosis            | ICD-10-CM        |
| C78.2       | Secondary malignant neoplasm of pleura                                             | Diagnosis            | ICD-10-CM        |
| C78.30      | Secondary malignant neoplasm of unspecified respiratory organ                      | Diagnosis            | ICD-10-CM        |
| C78.39      | Secondary malignant neoplasm of other respiratory organs                           | Diagnosis            | ICD-10-CM        |
| C78.4       | Secondary malignant neoplasm of small intestine                                    | Diagnosis            | ICD-10-CM        |
| C78.5       | Secondary malignant neoplasm of large intestine and rectum                         | Diagnosis            | ICD-10-CM        |
| C78.6       | Secondary malignant neoplasm of retroperitoneum and peritoneum                     | Diagnosis            | ICD-10-CM        |
| C78.7       | Secondary malignant neoplasm of liver and intrahepatic bile duct                   | Diagnosis            | ICD-10-CM        |
| C78.80      | Secondary malignant neoplasm of unspecified digestive organ                        | Diagnosis            | ICD-10-CM        |
| C78.89      | Secondary malignant neoplasm of other digestive organs                             | Diagnosis            | ICD-10-CM        |
| C79.0       | Secondary malignant neoplasm of kidney and renal pelvis                            | Diagnosis            | ICD-10-CM        |
| C79.00      | Secondary malignant neoplasm of unspecified kidney and renal pelvis                | Diagnosis            | ICD-10-CM        |
| C79.01      | Secondary malignant neoplasm of right kidney and renal pelvis                      | Diagnosis            | ICD-10-CM        |
| C79.02      | Secondary malignant neoplasm of left kidney and renal pelvis                       | Diagnosis            | ICD-10-CM        |
| C79.10      | Secondary malignant neoplasm of unspecified urinary organs                         | Diagnosis            | ICD-10-CM        |
| C79.11      | Secondary malignant neoplasm of bladder                                            | Diagnosis            | ICD-10-CM        |
| C79.19      | Secondary malignant neoplasm of other urinary organs                               | Diagnosis            | ICD-10-CM        |
| C79.2       | Secondary malignant neoplasm of skin                                               | Diagnosis            | ICD-10-CM        |
| C79.31      | Secondary malignant neoplasm of brain                                              | Diagnosis            | ICD-10-CM        |
| C79.32      | Secondary malignant neoplasm of cerebral meninges                                  | Diagnosis            | ICD-10-CM        |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code                      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Code      |           |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Category  | Code Type |
| C79.40                    | Secondary malignant neoplasm of unspecified part of nervous system                                                                                                                                                                                                                                                                                                                                                                                                 | Diagnosis | ICD-10-CM |
| C79.49                    | Secondary malignant neoplasm of other parts of nervous system                                                                                                                                                                                                                                                                                                                                                                                                      | Diagnosis | ICD-10-CM |
| C79.51                    | Secondary malignant neoplasm of bone                                                                                                                                                                                                                                                                                                                                                                                                                               | Diagnosis | ICD-10-CM |
| C79.52                    | Secondary malignant neoplasm of bone marrow                                                                                                                                                                                                                                                                                                                                                                                                                        | Diagnosis | ICD-10-CM |
| C79.60                    | Secondary malignant neoplasm of unspecified ovary                                                                                                                                                                                                                                                                                                                                                                                                                  | Diagnosis | ICD-10-CM |
| C79.61                    | Secondary malignant neoplasm of right ovary                                                                                                                                                                                                                                                                                                                                                                                                                        | Diagnosis | ICD-10-CM |
| C79.62                    | Secondary malignant neoplasm of left ovary                                                                                                                                                                                                                                                                                                                                                                                                                         | Diagnosis | ICD-10-CM |
| C79.70                    | Secondary malignant neoplasm of unspecified adrenal gland                                                                                                                                                                                                                                                                                                                                                                                                          | Diagnosis | ICD-10-CM |
| C79.71                    | Secondary malignant neoplasm of right adrenal gland                                                                                                                                                                                                                                                                                                                                                                                                                | Diagnosis | ICD-10-CM |
| C79.72                    | Secondary malignant neoplasm of left adrenal gland                                                                                                                                                                                                                                                                                                                                                                                                                 | Diagnosis | ICD-10-CM |
| C79.81                    | Secondary malignant neoplasm of breast                                                                                                                                                                                                                                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| C79.82                    | Secondary malignant neoplasm of genital organs                                                                                                                                                                                                                                                                                                                                                                                                                     | Diagnosis | ICD-10-CM |
| C79.89                    | Secondary malignant neoplasm of other specified sites                                                                                                                                                                                                                                                                                                                                                                                                              | Diagnosis | ICD-10-CM |
| C79.9                     | Secondary malignant neoplasm of unspecified site                                                                                                                                                                                                                                                                                                                                                                                                                   | Diagnosis | ICD-10-CM |
| C80.0                     | Disseminated malignant neoplasm, unspecified                                                                                                                                                                                                                                                                                                                                                                                                                       | Diagnosis | ICD-10-CM |
| C80.1                     | Malignant (primary) neoplasm, unspecified                                                                                                                                                                                                                                                                                                                                                                                                                          | Diagnosis | ICD-10-CM |
| V10.52                    | Personal history of malignant neoplasm of kidney                                                                                                                                                                                                                                                                                                                                                                                                                   | Diagnosis | ICD-10-CM |
| Z85.528                   | Personal history of other malignant neoplasm of kidney                                                                                                                                                                                                                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| <b>Diagnostic Work-Up</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |           |
| 36251                     | Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s), fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; unilateral                                    | Procedure | CPT-4     |
| 36252                     | Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s), fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; bilateral                                     | Procedure | CPT-4     |
| 36253                     | Superselective catheter placement (one or more second order or higher renal artery branches) renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture, catheterization, fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; unilateral | Procedure | CPT-4     |
| 36254                     | Superselective catheter placement (one or more second order or higher renal artery branches) renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture, catheterization, fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; bilateral  | Procedure | CPT-4     |
| 52204                     | Cystourethroscopy, with biopsy(s)                                                                                                                                                                                                                                                                                                                                                                                                                                  | Procedure | CPT-4     |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                 | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 70553       | Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material, followed by contrast material(s) and further sequences                                           | Procedure            | CPT-4            |
| 71045       | Radiologic examination, chest; single view                                                                                                                                                         | Procedure            | CPT-4            |
| 71046       | Radiologic examination, chest; 2 views                                                                                                                                                             | Procedure            | CPT-4            |
| 71047       | Radiologic examination, chest; 3 views                                                                                                                                                             | Procedure            | CPT-4            |
| 71048       | Radiologic examination, chest; 4 or more views                                                                                                                                                     | Procedure            | CPT-4            |
| 71250       | Computed tomography, thorax, diagnostic; without contrast material                                                                                                                                 | Procedure            | CPT-4            |
| 71260       | Computed tomography, thorax, diagnostic; with contrast material(s)                                                                                                                                 | Procedure            | CPT-4            |
| 71270       | Computed tomography, thorax, diagnostic; without contrast material, followed by contrast material(s) and further sections                                                                          | Procedure            | CPT-4            |
| 71275       | Computed tomographic angiography, chest (noncoronary), with contrast material(s), including noncontrast images, if performed, and image postprocessing                                             | Procedure            | CPT-4            |
| 71550       | Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s)                                                         | Procedure            | CPT-4            |
| 71552       | Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s), followed by contrast material(s) and further sequences | Procedure            | CPT-4            |
| 71555       | Magnetic resonance angiography, chest (excluding myocardium), with or without contrast material(s)                                                                                                 | Procedure            | CPT-4            |
| 72192       | Computed tomography, pelvis; without contrast material                                                                                                                                             | Procedure            | CPT-4            |
| 72193       | Computed tomography, pelvis; with contrast material(s)                                                                                                                                             | Procedure            | CPT-4            |
| 72194       | Computed tomography, pelvis; without contrast material, followed by contrast material(s) and further sections                                                                                      | Procedure            | CPT-4            |
| 72195       | Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s)                                                                                                                      | Procedure            | CPT-4            |
| 72197       | Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s), followed by contrast material(s) and further sequences                                                              | Procedure            | CPT-4            |
| 74150       | Computed tomography, abdomen; without contrast material                                                                                                                                            | Procedure            | CPT-4            |
| 74160       | Computed tomography, abdomen; with contrast material(s)                                                                                                                                            | Procedure            | CPT-4            |
| 74170       | Computed tomography, abdomen; without contrast material, followed by contrast material(s) and further sections                                                                                     | Procedure            | CPT-4            |
| 74176       | Computed tomography, abdomen and pelvis; without contrast material                                                                                                                                 | Procedure            | CPT-4            |
| 74177       | Computed tomography, abdomen and pelvis; with contrast material(s)                                                                                                                                 | Procedure            | CPT-4            |
| 74178       | Computed tomography, abdomen and pelvis; without contrast material in one or both body regions, followed by contrast material(s) and further sections in one or both body regions                  | Procedure            | CPT-4            |
| 74181       | Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s)                                                                                                                     | Procedure            | CPT-4            |
| 74183       | Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s), followed by with contrast material(s) and further sequences                                                        | Procedure            | CPT-4            |
| 78300       | Bone and/or joint imaging; limited area                                                                                                                                                            | Procedure            | CPT-4            |
| 78305       | Bone and/or joint imaging; multiple areas                                                                                                                                                          | Procedure            | CPT-4            |
| 78306       | Bone and/or joint imaging; whole body                                                                                                                                                              | Procedure            | CPT-4            |
| 78315       | Bone and/or joint imaging; 3 phase study                                                                                                                                                           | Procedure            | CPT-4            |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b>                                     | <b>Description</b>                                                                                                                                                                                                            | <b>Code Category</b> | <b>Code Type</b> |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 78320                                           | Bone and/or joint imaging; tomographic (SPECT)                                                                                                                                                                                | Procedure            | CPT-4            |
| 81001                                           | Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; automated, with microscopy        | Procedure            | CPT-4            |
| 81002                                           | Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; non-automated, without microscopy | Procedure            | CPT-4            |
| 81003                                           | Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; automated, without microscopy     | Procedure            | CPT-4            |
| 85004                                           | Blood count; automated differential WBC count                                                                                                                                                                                 | Procedure            | CPT-4            |
| 85007                                           | Blood count; blood smear, microscopic examination with manual differential WBC count                                                                                                                                          | Procedure            | CPT-4            |
| 85008                                           | Blood count; blood smear, microscopic examination without manual differential WBC count                                                                                                                                       | Procedure            | CPT-4            |
| 85009                                           | Blood count; manual differential WBC count, buffy coat                                                                                                                                                                        | Procedure            | CPT-4            |
| 85013                                           | Blood count; spun microhematocrit                                                                                                                                                                                             | Procedure            | CPT-4            |
| 85014                                           | Blood count; hematocrit (Hct)                                                                                                                                                                                                 | Procedure            | CPT-4            |
| 85018                                           | Blood count; hemoglobin (Hgb)                                                                                                                                                                                                 | Procedure            | CPT-4            |
| 85032                                           | Blood count; manual cell count (erythrocyte, leukocyte, or platelet) each                                                                                                                                                     | Procedure            | CPT-4            |
| 85041                                           | Blood count; red blood cell (RBC), automated                                                                                                                                                                                  | Procedure            | CPT-4            |
| 85048                                           | Blood count; leukocyte (WBC), automated                                                                                                                                                                                       | Procedure            | CPT-4            |
| 85049                                           | Blood count; platelet, automated                                                                                                                                                                                              | Procedure            | CPT-4            |
| 88341                                           | Immunohistochemistry or immunocytochemistry, per specimen; each additional single antibody stain procedure (List separately in addition to code for primary procedure)                                                        | Procedure            | CPT-4            |
| 88342                                           | Immunohistochemistry or immunocytochemistry, per specimen; initial single antibody stain procedure                                                                                                                            | Procedure            | CPT-4            |
| R93.41                                          | Abnormal radiologic findings on diagnostic imaging of renal pelvis, ureter, or bladder                                                                                                                                        | Diagnosis            | ICD-10-CM        |
| R93.421                                         | Abnormal radiologic findings on diagnostic imaging of right kidney                                                                                                                                                            | Diagnosis            | ICD-10-CM        |
| R93.422                                         | Abnormal radiologic findings on diagnostic imaging of left kidney                                                                                                                                                             | Diagnosis            | ICD-10-CM        |
| R93.429                                         | Abnormal radiologic findings on diagnostic imaging of unspecified kidney                                                                                                                                                      | Diagnosis            | ICD-10-CM        |
| R93.49                                          | Abnormal radiologic findings on diagnostic imaging of other urinary organs                                                                                                                                                    | Diagnosis            | ICD-10-CM        |
| 76700                                           | Ultrasound, abdominal, real time with image documentation; complete                                                                                                                                                           | Procedure            | CPT-4            |
| 76705                                           | Ultrasound, abdominal, real time with image documentation; limited (eg, single organ, quadrant, follow-up)                                                                                                                    | Procedure            | CPT-4            |
| <b>Metastatic Renal Cell Carcinoma Symptoms</b> |                                                                                                                                                                                                                               |                      |                  |
| 196.9                                           | Secondary and unspecified malignant neoplasm of lymph nodes, site unspecified                                                                                                                                                 | Diagnosis            | ICD-9-CM         |
| 197.0                                           | Secondary malignant neoplasm of lung                                                                                                                                                                                          | Diagnosis            | ICD-9-CM         |
| 197.7                                           | Secondary malignant neoplasm of liver                                                                                                                                                                                         | Diagnosis            | ICD-9-CM         |
| 198.3                                           | Secondary malignant neoplasm of brain and spinal cord                                                                                                                                                                         | Diagnosis            | ICD-9-CM         |
| 198.5                                           | Secondary malignant neoplasm of bone and bone marrow                                                                                                                                                                          | Diagnosis            | ICD-9-CM         |
| 198.7                                           | Secondary malignant neoplasm of adrenal gland                                                                                                                                                                                 | Diagnosis            | ICD-9-CM         |



**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b> | <b>Description</b>                                                 | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------|----------------------|------------------|
| 275.42      | Hypercalcemia                                                      | Diagnosis            | ICD-9-CM         |
| 277.3       | Amyloidosis                                                        | Diagnosis            | ICD-9-CM         |
| 277.30      | Amyloidosis, unspecified                                           | Diagnosis            | ICD-9-CM         |
| 277.39      | Other amyloidosis                                                  | Diagnosis            | ICD-9-CM         |
| 281.9       | Unspecified deficiency anemia                                      | Diagnosis            | ICD-9-CM         |
| 285         | Other and unspecified anemias                                      | Diagnosis            | ICD-9-CM         |
| 285.2       | Anemia of chronic disease                                          | Diagnosis            | ICD-9-CM         |
| 285.21      | Anemia in chronic kidney disease                                   | Diagnosis            | ICD-9-CM         |
| 285.22      | Anemia in neoplastic disease                                       | Diagnosis            | ICD-9-CM         |
| 285.29      | Anemia of other chronic disease                                    | Diagnosis            | ICD-9-CM         |
| 285.8       | Other specified anemias                                            | Diagnosis            | ICD-9-CM         |
| 285.9       | Unspecified anemia                                                 | Diagnosis            | ICD-9-CM         |
| 415.1       | Pulmonary embolism and infarction                                  | Diagnosis            | ICD-9-CM         |
| 447.0       | Arteriovenous fistula, acquired                                    | Diagnosis            | ICD-9-CM         |
| 453.2       | Other venous embolism and thrombosis, of inferior vena cava        | Diagnosis            | ICD-9-CM         |
| 453.3       | Embolism and thrombosis of renal vein                              | Diagnosis            | ICD-9-CM         |
| 518.0       | Pulmonary collapse                                                 | Diagnosis            | ICD-9-CM         |
| 593.9       | Unspecified disorder of kidney and ureter                          | Diagnosis            | ICD-9-CM         |
| 599.7       | Hematuria                                                          | Diagnosis            | ICD-9-CM         |
| 599.70      | Hematuria, unspecified                                             | Diagnosis            | ICD-9-CM         |
| 725         | Polymyalgia rheumatica                                             | Diagnosis            | ICD-9-CM         |
| 733.9       | Other and unspecified disorder of bone and cartilage               | Diagnosis            | ICD-9-CM         |
| 780.6       | Fever and other physiologic disturbances of temperature regulation | Diagnosis            | ICD-9-CM         |
| 780.60      | Fever, unspecified                                                 | Diagnosis            | ICD-9-CM         |
| 780.61      | Fever presenting with conditions classified elsewhere              | Diagnosis            | ICD-9-CM         |
| 785.6       | Enlargement of lymph nodes                                         | Diagnosis            | ICD-9-CM         |
| 786.3       | Hemoptysis                                                         | Diagnosis            | ICD-9-CM         |
| 786.30      | Hemoptysis, unspecified                                            | Diagnosis            | ICD-9-CM         |
| 789.0       | Abdominal pain                                                     | Diagnosis            | ICD-9-CM         |
| 789.00      | Abdominal pain, unspecified site                                   | Diagnosis            | ICD-9-CM         |
| 789.01      | Abdominal pain, right upper quadrant                               | Diagnosis            | ICD-9-CM         |
| 789.02      | Abdominal pain, left upper quadrant                                | Diagnosis            | ICD-9-CM         |
| 789.03      | Abdominal pain, right lower quadrant                               | Diagnosis            | ICD-9-CM         |
| 789.04      | Abdominal pain, left lower quadrant                                | Diagnosis            | ICD-9-CM         |
| 789.05      | Abdominal pain, periumbilic                                        | Diagnosis            | ICD-9-CM         |
| 789.06      | Abdominal pain, epigastric                                         | Diagnosis            | ICD-9-CM         |
| 789.07      | Abdominal pain, generalized                                        | Diagnosis            | ICD-9-CM         |
| 789.09      | Abdominal pain, other specified site                               | Diagnosis            | ICD-9-CM         |
| 789.30      | Abdominal or pelvic swelling, mass or lump, unspecified site       | Diagnosis            | ICD-9-CM         |
| 789.31      | Abdominal or pelvic swelling, mass, or lump, right upper quadrant  | Diagnosis            | ICD-9-CM         |
| 789.32      | Abdominal or pelvic swelling, mass, or lump, left upper quadrant   | Diagnosis            | ICD-9-CM         |
| 789.34      | Abdominal or pelvic swelling, mass, or lump, left lower quadrant   | Diagnosis            | ICD-9-CM         |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b> | <b>Description</b>                                                      | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------|----------------------|------------------|
| 789.37      | Abdominal or pelvic swelling, mass, or lump, generalized                | Diagnosis            | ICD-9-CM         |
| 789.39      | Abdominal or pelvic swelling, mass, or lump, other specified site       | Diagnosis            | ICD-9-CM         |
| 789.5       | Ascites                                                                 | Diagnosis            | ICD-9-CM         |
| 789.51      | Malignant ascites                                                       | Diagnosis            | ICD-9-CM         |
| 789.59      | Other ascites                                                           | Diagnosis            | ICD-9-CM         |
| 799.4       | Cachexia                                                                | Diagnosis            | ICD-9-CM         |
| C77.9       | Secondary and unspecified malignant neoplasm of lymph node, unspecified | Diagnosis            | ICD-10-CM        |
| C78.0       | Secondary malignant neoplasm of lung                                    | Diagnosis            | ICD-10-CM        |
| C78.00      | Secondary malignant neoplasm of unspecified lung                        | Diagnosis            | ICD-10-CM        |
| C78.01      | Secondary malignant neoplasm of right lung                              | Diagnosis            | ICD-10-CM        |
| C78.02      | Secondary malignant neoplasm of left lung                               | Diagnosis            | ICD-10-CM        |
| C78.7       | Secondary malignant neoplasm of liver and intrahepatic bile duct        | Diagnosis            | ICD-10-CM        |
| C79.31      | Secondary malignant neoplasm of brain                                   | Diagnosis            | ICD-10-CM        |
| C79.51      | Secondary malignant neoplasm of bone                                    | Diagnosis            | ICD-10-CM        |
| C79.70      | Secondary malignant neoplasm of unspecified adrenal gland               | Diagnosis            | ICD-10-CM        |
| C79.71      | Secondary malignant neoplasm of right adrenal gland                     | Diagnosis            | ICD-10-CM        |
| C79.72      | Secondary malignant neoplasm of left adrenal gland                      | Diagnosis            | ICD-10-CM        |
| D63         | Anemia in chronic diseases classified elsewhere                         | Diagnosis            | ICD-10-CM        |
| D63.0       | Anemia in neoplastic disease                                            | Diagnosis            | ICD-10-CM        |
| D63.1       | Anemia in chronic kidney disease                                        | Diagnosis            | ICD-10-CM        |
| D63.8       | Anemia in other chronic diseases classified elsewhere                   | Diagnosis            | ICD-10-CM        |
| D64         | Other anemias                                                           | Diagnosis            | ICD-10-CM        |
| D64.8       | Other specified anemias                                                 | Diagnosis            | ICD-10-CM        |
| D64.9       | Anemia, unspecified                                                     | Diagnosis            | ICD-10-CM        |
| D75.83      | Thrombocytosis                                                          | Diagnosis            | ICD-10-CM        |
| D75.838     | Other thrombocytosis                                                    | Diagnosis            | ICD-10-CM        |
| D75.839     | Thrombocytosis, unspecified                                             | Diagnosis            | ICD-10-CM        |
| E83.52      | Hypercalcemia                                                           | Diagnosis            | ICD-10-CM        |
| E85         | Amyloidosis                                                             | Diagnosis            | ICD-10-CM        |
| E85.8       | Other amyloidosis                                                       | Diagnosis            | ICD-10-CM        |
| E85.89      | Other amyloidosis                                                       | Diagnosis            | ICD-10-CM        |
| E85.9       | Amyloidosis, unspecified                                                | Diagnosis            | ICD-10-CM        |
| I77.0       | Arteriovenous fistula, acquired                                         | Diagnosis            | ICD-10-CM        |
| I82.220     | Acute embolism and thrombosis of inferior vena cava                     | Diagnosis            | ICD-10-CM        |
| I82.221     | Chronic embolism and thrombosis of inferior vena cava                   | Diagnosis            | ICD-10-CM        |
| I89.0       | Lymphedema, not elsewhere classified                                    | Diagnosis            | ICD-10-CM        |
| J81         | Pulmonary edema                                                         | Diagnosis            | ICD-10-CM        |
| J81.0       | Acute pulmonary edema                                                   | Diagnosis            | ICD-10-CM        |
| J81.1       | Chronic pulmonary edema                                                 | Diagnosis            | ICD-10-CM        |
| J98.19      | Other pulmonary collapse                                                | Diagnosis            | ICD-10-CM        |
| M31.5       | Giant cell arteritis with polymyalgia rheumatica                        | Diagnosis            | ICD-10-CM        |
| M35.3       | Polymyalgia rheumatica                                                  | Diagnosis            | ICD-10-CM        |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b>             | <b>Description</b>                                                    | <b>Code Category</b> | <b>Code Type</b> |
|-------------------------|-----------------------------------------------------------------------|----------------------|------------------|
| N28.9                   | Disorder of kidney and ureter, unspecified                            | Diagnosis            | ICD-10-CM        |
| N29                     | Other disorders of kidney and ureter in diseases classified elsewhere | Diagnosis            | ICD-10-CM        |
| R04.2                   | Hemoptysis                                                            | Diagnosis            | ICD-10-CM        |
| R10.0                   | Acute abdomen                                                         | Diagnosis            | ICD-10-CM        |
| R10.10                  | Upper abdominal pain, unspecified                                     | Diagnosis            | ICD-10-CM        |
| R10.11                  | Right upper quadrant pain                                             | Diagnosis            | ICD-10-CM        |
| R10.12                  | Left upper quadrant pain                                              | Diagnosis            | ICD-10-CM        |
| R10.13                  | Epigastric pain                                                       | Diagnosis            | ICD-10-CM        |
| R10.2                   | Pelvic and perineal pain                                              | Diagnosis            | ICD-10-CM        |
| R10.30                  | Lower abdominal pain, unspecified                                     | Diagnosis            | ICD-10-CM        |
| R10.31                  | Right lower quadrant pain                                             | Diagnosis            | ICD-10-CM        |
| R10.32                  | Left lower quadrant pain                                              | Diagnosis            | ICD-10-CM        |
| R10.33                  | Periumbilical pain                                                    | Diagnosis            | ICD-10-CM        |
| R10.84                  | Generalized abdominal pain                                            | Diagnosis            | ICD-10-CM        |
| R10.9                   | Unspecified abdominal pain                                            | Diagnosis            | ICD-10-CM        |
| R18                     | Ascites                                                               | Diagnosis            | ICD-10-CM        |
| R18.0                   | Malignant ascites                                                     | Diagnosis            | ICD-10-CM        |
| R18.8                   | Other ascites                                                         | Diagnosis            | ICD-10-CM        |
| R19.00                  | Intra-abdominal and pelvic swelling, mass and lump, unspecified site  | Diagnosis            | ICD-10-CM        |
| R19.01                  | Right upper quadrant abdominal swelling, mass and lump                | Diagnosis            | ICD-10-CM        |
| R19.02                  | Left upper quadrant abdominal swelling, mass and lump                 | Diagnosis            | ICD-10-CM        |
| R19.04                  | Left lower quadrant abdominal swelling, mass and lump                 | Diagnosis            | ICD-10-CM        |
| R19.07                  | Generalized intra-abdominal and pelvic swelling, mass and lump        | Diagnosis            | ICD-10-CM        |
| R19.09                  | Other intra-abdominal and pelvic swelling, mass and lump              | Diagnosis            | ICD-10-CM        |
| R31.9                   | Hematuria, unspecified                                                | Diagnosis            | ICD-10-CM        |
| R50.81                  | Fever presenting with conditions classified elsewhere                 | Diagnosis            | ICD-10-CM        |
| R50.9                   | Fever, unspecified                                                    | Diagnosis            | ICD-10-CM        |
| R59.0                   | Localized enlarged lymph nodes                                        | Diagnosis            | ICD-10-CM        |
| R59.1                   | Generalized enlarged lymph nodes                                      | Diagnosis            | ICD-10-CM        |
| R59.9                   | Enlarged lymph nodes, unspecified                                     | Diagnosis            | ICD-10-CM        |
| R60                     | Edema, not elsewhere classified                                       | Diagnosis            | ICD-10-CM        |
| R60.0                   | Localized edema                                                       | Diagnosis            | ICD-10-CM        |
| R60.1                   | Generalized edema                                                     | Diagnosis            | ICD-10-CM        |
| R64                     | Cachexia                                                              | Diagnosis            | ICD-10-CM        |
| T78.3                   | Angioneurotic edema                                                   | Diagnosis            | ICD-10-CM        |
| T78.3XXA                | Angioneurotic edema, initial encounter                                | Diagnosis            | ICD-10-CM        |
| T78.3XXD                | Angioneurotic edema, subsequent encounter                             | Diagnosis            | ICD-10-CM        |
| T78.3XXS                | Angioneurotic edema, sequela                                          | Diagnosis            | ICD-10-CM        |
| <b>Surgery/Ablation</b> |                                                                       |                      |                  |
| 554                     | Partial nephrectomy                                                   | Procedure            | ICD-9-PCS        |
| 3807                    | Abdominal vein incision                                               | Procedure            | ICD-9-PCS        |
| 4711                    | Incidental laparoscopic appendectomy                                  | Procedure            | ICD-9-PCS        |



**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b> | <b>Description</b>                                                                           | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------|----------------------|------------------|
| 5123        | Laparoscopic cholecystectomy                                                                 | Procedure            | ICD-9-PCS        |
| 5421        | Laparoscopy                                                                                  | Procedure            | ICD-9-PCS        |
| 5451        | Laparoscopic lysis of peritoneal adhesions                                                   | Procedure            | ICD-9-PCS        |
| 5501        | Nephrotomy                                                                                   | Procedure            | ICD-9-PCS        |
| 5524        | Open biopsy of kidney                                                                        | Procedure            | ICD-9-PCS        |
| 5531        | Marsupialization of kidney lesion                                                            | Procedure            | ICD-9-PCS        |
| 5539        | Other local excision/destruction of renal lesion                                             | Procedure            | ICD-9-PCS        |
| 5551        | Nephroureterectomy                                                                           | Procedure            | ICD-9-PCS        |
| 5552        | Nephrectomy of remaining kidney                                                              | Procedure            | ICD-9-PCS        |
| 5554        | Bilateral nephrectomy                                                                        | Procedure            | ICD-9-PCS        |
| 5581        | Suture laceration of kidney                                                                  | Procedure            | ICD-9-PCS        |
| 5589        | Other repair of kidney                                                                       | Procedure            | ICD-9-PCS        |
| 5591        | Decapsulation of the kidney                                                                  | Procedure            | ICD-9-PCS        |
| 5902        | Other lysis perirenal/periureteral tissue                                                    | Procedure            | ICD-9-PCS        |
| 5903        | Laparoscopic lysis perirenal/periureteral adhesions                                          | Procedure            | ICD-9-PCS        |
| 5909        | Other incision perirenal/periureteral tissue                                                 | Procedure            | ICD-9-PCS        |
| 5921        | Biopsy perirenal and perivesical tissues                                                     | Procedure            | ICD-9-PCS        |
| 6563        | Laparoscopic removal bilateral ovary-tubes                                                   | Procedure            | ICD-9-PCS        |
| 37799       | Unlisted procedure, vascular surgery (for vena caval resection with reconstruction)          | Procedure            | CPT-4            |
| 44200       | Laparoscopic enterolysis                                                                     | Procedure            | CPT-4            |
| 47562       | Laparoscopic cholecystectomy                                                                 | Procedure            | CPT-4            |
| 49010       | Exploration, retroperitoneal area with or without biopsy                                     | Procedure            | CPT-4            |
| 49200       | Excision or destruction, open, intra-abdominal or retroperitoneal tumors or cysts            | Procedure            | CPT-4            |
| 49201       | Excision or destruction, open, intra-abdominal or retroperitoneal tumors or cysts, extensive | Procedure            | CPT-4            |
| 49320       | Laparoscopy, diagnostic                                                                      | Procedure            | CPT-4            |
| 49321       | Laparoscopy diagnostic, with biopsy                                                          | Procedure            | CPT-4            |
| 50205       | Renal biopsy by surgical exposure of the kidney                                              | Procedure            | CPT-4            |
| 50220       | Nephrectomy, including partial ureterectomy, any open approach                               | Procedure            | CPT-4            |
| 50225       | Nephrectomy, including partial ureterectomy, any open approach, complicated                  | Procedure            | CPT-4            |
| 50230       | Nephrectomy, radical, with regional lymphadenectomy and/or vena caval thrombectomy           | Procedure            | CPT-4            |
| 50234       | Nephrectomy, with total ureterectomy and bladder cuff through same incision                  | Procedure            | CPT-4            |
| 50236       | Nephrectomy, with total ureterectomy and bladder cuff through separate incision              | Procedure            | CPT-4            |
| 50240       | Nephrectomy, partial                                                                         | Procedure            | CPT-4            |
| 50250       | Surgical cryoablation of renal tumor(s)                                                      | Procedure            | CPT-4            |
| 50280       | Excision or unroofing of cysts(s) of kidney                                                  | Procedure            | CPT-4            |
| 50380       | Renal autotransplantation, reimplantation of kidney                                          | Procedure            | CPT-4            |
| 50541       | Laparoscopy, surgical; ablation of renal cysts                                               | Procedure            | CPT-4            |
| 50542       | Laparoscopy, surgical; ablation of renal mass lesion(s)                                      | Procedure            | CPT-4            |
| 50543       | Laparoscopy, partial nephrectomy                                                             | Procedure            | CPT-4            |
| 50545       | Laparoscopy, radical nephrectomy                                                             | Procedure            | CPT-4            |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b> | <b>Description</b>                                                               | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------|----------------------|------------------|
| 50546       | Laparoscopy, nephrectomy including partial ureterectomy                          | Procedure            | CPT-4            |
| 50548       | Laparoscopy, nephrectomy with total ureterectomy                                 | Procedure            | CPT-4            |
| 50549       | Unlisted laparoscopy procedure, renal                                            | Procedure            | CPT-4            |
| 50592       | Percutaneous radiofrequency ablation of renal tumor(s)                           | Procedure            | CPT-4            |
| 50593       | Percutaneous cryoablation of renal tumor(s)                                      | Procedure            | CPT-4            |
| 56300       | Laparoscopy, diagnostic                                                          | Procedure            | CPT-4            |
| 56340       | Laparoscopic cholecystectomy                                                     | Procedure            | CPT-4            |
| 56399       | Unlisted procedure, laparoscopy                                                  | Procedure            | CPT-4            |
| 60650       | Laparoscopy with adrenalectomy                                                   | Procedure            | CPT-4            |
| 0135T       | Ablation, renal tumor(s), unilateral, percutaneous, cryotherapy                  | Procedure            | CPT-3            |
| 0T500ZZ     | Destruction of Right Kidney, Open Approach                                       | Procedure            | ICD-10-PCS       |
| 0T503ZZ     | Destruction of Right Kidney, Percutaneous Approach                               | Procedure            | ICD-10-PCS       |
| 0T504ZZ     | Destruction of Right Kidney, Percutaneous Endoscopic Approach                    | Procedure            | ICD-10-PCS       |
| 0T507ZZ     | Destruction of Right Kidney, Via Natural or Artificial Opening                   | Procedure            | ICD-10-PCS       |
| 0T508ZZ     | Destruction of Right Kidney, Via Natural or Artificial Opening Endoscopic        | Procedure            | ICD-10-PCS       |
| 0T510ZZ     | Destruction of Left Kidney, Open Approach                                        | Procedure            | ICD-10-PCS       |
| 0T513ZZ     | Destruction of Left Kidney, Percutaneous Approach                                | Procedure            | ICD-10-PCS       |
| 0T514ZZ     | Destruction of Left Kidney, Percutaneous Endoscopic Approach                     | Procedure            | ICD-10-PCS       |
| 0T517ZZ     | Destruction of Left Kidney, Via Natural or Artificial Opening                    | Procedure            | ICD-10-PCS       |
| 0T518ZZ     | Destruction of Left Kidney, Via Natural or Artificial Opening Endoscopic         | Procedure            | ICD-10-PCS       |
| 0T530ZZ     | Destruction of Right Kidney Pelvis, Open Approach                                | Procedure            | ICD-10-PCS       |
| 0T533ZZ     | Destruction of Right Kidney Pelvis, Percutaneous Approach                        | Procedure            | ICD-10-PCS       |
| 0T534ZZ     | Destruction of Right Kidney Pelvis, Percutaneous Endoscopic Approach             | Procedure            | ICD-10-PCS       |
| 0T537ZZ     | Destruction of Right Kidney Pelvis, Via Natural or Artificial Opening            | Procedure            | ICD-10-PCS       |
| 0T538ZZ     | Destruction of Right Kidney Pelvis, Via Natural or Artificial Opening Endoscopic | Procedure            | ICD-10-PCS       |
| 0T540ZZ     | Destruction of Left Kidney Pelvis, Open Approach                                 | Procedure            | ICD-10-PCS       |
| 0T543ZZ     | Destruction of Left Kidney Pelvis, Percutaneous Approach                         | Procedure            | ICD-10-PCS       |
| 0T544ZZ     | Destruction of Left Kidney Pelvis, Percutaneous Endoscopic Approach              | Procedure            | ICD-10-PCS       |
| 0T547ZZ     | Destruction of Left Kidney Pelvis, Via Natural or Artificial Opening             | Procedure            | ICD-10-PCS       |
| 0T548ZZ     | Destruction of Left Kidney Pelvis, Via Natural or Artificial Opening Endoscopic  | Procedure            | ICD-10-PCS       |
| 0TB00ZZ     | Excision of Right Kidney, Open Approach                                          | Procedure            | ICD-10-PCS       |
| 0TB03ZZ     | Excision of Right Kidney, Percutaneous Approach                                  | Procedure            | ICD-10-PCS       |
| 0TB04ZZ     | Excision of Right Kidney, Percutaneous Endoscopic Approach                       | Procedure            | ICD-10-PCS       |
| 0TB07ZZ     | Excision of Right Kidney, Via Natural or Artificial Opening                      | Procedure            | ICD-10-PCS       |
| 0TB08ZZ     | Excision of Right Kidney, Via Natural or Artificial Opening Endoscopic           | Procedure            | ICD-10-PCS       |
| 0TB10ZZ     | Excision of Left Kidney, Open Approach                                           | Procedure            | ICD-10-PCS       |
| 0TB13ZZ     | Excision of Left Kidney, Percutaneous Approach                                   | Procedure            | ICD-10-PCS       |
| 0TB14ZZ     | Excision of Left Kidney, Percutaneous Endoscopic Approach                        | Procedure            | ICD-10-PCS       |
| 0TB17ZZ     | Excision of Left Kidney, Via Natural or Artificial Opening                       | Procedure            | ICD-10-PCS       |
| 0TB18ZZ     | Excision of Left Kidney, Via Natural or Artificial Opening Endoscopic            | Procedure            | ICD-10-PCS       |
| 0TB30ZZ     | Excision of Right Kidney Pelvis, Open Approach                                   | Procedure            | ICD-10-PCS       |
| 0TB33ZZ     | Excision of Right Kidney Pelvis, Percutaneous Approach                           | Procedure            | ICD-10-PCS       |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code                | Description                                                                    | Code Category | Code Type  |
|---------------------|--------------------------------------------------------------------------------|---------------|------------|
| 0TB34ZZ             | Excision of Right Kidney Pelvis, Percutaneous Endoscopic Approach              | Procedure     | ICD-10-PCS |
| 0TB37ZZ             | Excision of Right Kidney Pelvis, Via Natural or Artificial Opening             | Procedure     | ICD-10-PCS |
| 0TB38ZZ             | Excision of Right Kidney Pelvis, Via Natural or Artificial Opening Endoscopic  | Procedure     | ICD-10-PCS |
| 0TB40ZZ             | Excision of Left Kidney Pelvis, Open Approach                                  | Procedure     | ICD-10-PCS |
| 0TB43ZZ             | Excision of Left Kidney Pelvis, Percutaneous Approach                          | Procedure     | ICD-10-PCS |
| 0TB44ZZ             | Excision of Left Kidney Pelvis, Percutaneous Endoscopic Approach               | Procedure     | ICD-10-PCS |
| 0TB47ZZ             | Excision of Left Kidney Pelvis, Via Natural or Artificial Opening              | Procedure     | ICD-10-PCS |
| 0TB48ZZ             | Excision of Left Kidney Pelvis, Via Natural or Artificial Opening Endoscopic   | Procedure     | ICD-10-PCS |
| 0TN00ZZ             | Release Right Kidney, Open Approach                                            | Procedure     | ICD-10-PCS |
| 0TN10ZZ             | Release Left Kidney, Open Approach                                             | Procedure     | ICD-10-PCS |
| 0TT00ZZ             | Resection of Right Kidney, Open Approach                                       | Procedure     | ICD-10-PCS |
| 0TT04ZZ             | Resection of Right Kidney, Percutaneous Endoscopic Approach                    | Procedure     | ICD-10-PCS |
| 0TT10ZZ             | Resection of Left Kidney, Open Approach                                        | Procedure     | ICD-10-PCS |
| 0TT14ZZ             | Resection of Left Kidney, Percutaneous Endoscopic Approach                     | Procedure     | ICD-10-PCS |
| 0TT20ZZ             | Resection of Bilateral Kidneys, Open Approach                                  | Procedure     | ICD-10-PCS |
| 0TT24ZZ             | Resection of Bilateral Kidneys, Percutaneous Endoscopic Approach               | Procedure     | ICD-10-PCS |
| 0TT30ZZ             | Resection of Right Kidney Pelvis, Open Approach                                | Procedure     | ICD-10-PCS |
| 0TT34ZZ             | Resection of Right Kidney Pelvis, Percutaneous Endoscopic Approach             | Procedure     | ICD-10-PCS |
| 0TT37ZZ             | Resection of Right Kidney Pelvis, Via Natural or Artificial Opening            | Procedure     | ICD-10-PCS |
| 0TT38ZZ             | Resection of Right Kidney Pelvis, Via Natural or Artificial Opening Endoscopic | Procedure     | ICD-10-PCS |
| 0TT40ZZ             | Resection of Left Kidney Pelvis, Open Approach                                 | Procedure     | ICD-10-PCS |
| 0TT44ZZ             | Resection of Left Kidney Pelvis, Percutaneous Endoscopic Approach              | Procedure     | ICD-10-PCS |
| 0TT47ZZ             | Resection of Left Kidney Pelvis, Via Natural or Artificial Opening             | Procedure     | ICD-10-PCS |
| 0TT48ZZ             | Resection of Left Kidney Pelvis, Via Natural or Artificial Opening Endoscopic  | Procedure     | ICD-10-PCS |
| 55.32               | Open ablation of renal lesion or tissue                                        | Procedure     | ICD-9-PCS  |
| 55.33               | Percutaneous ablation of renal lesion or tissue                                | Procedure     | ICD-9-PCS  |
| 55.34               | Laparoscopic ablation of renal lesion or tissue                                | Procedure     | ICD-9-PCS  |
| 55.35               | Other and unspecified ablation of renal lesion or tissue                       | Procedure     | ICD-9-PCS  |
| 55.4                | Partial nephrectomy                                                            | Procedure     | ICD-9-PCS  |
| 55.5                | Complete nephrectomy                                                           | Procedure     | ICD-9-PCS  |
| 55.52               | Nephrectomy of remaining kidney                                                | Procedure     | ICD-9-PCS  |
| 55.54               | Bilateral nephrectomy                                                          | Procedure     | ICD-9-PCS  |
| S2090               | Ablation, open, one or more renal tumor(s); cryosurgical                       | Procedure     | HCPCS      |
| <b>Radiotherapy</b> |                                                                                |               |            |
| 92.26               | Teleradiotherapy of other particulate radiation                                | Procedure     | ICD-9-PCS  |
| D7060ZZ             | Beam Radiation of Abdomen Lymphatics using Photons <1 MeV                      | Procedure     | ICD-10-PCS |
| D7063Z0             | Beam Radiation of Abdomen Lymphatics using Electrons, Intraoperative           | Procedure     | ICD-10-PCS |
| D7064ZZ             | Beam Radiation of Abdomen Lymphatics using Heavy Particles (Protons,Ions)      | Procedure     | ICD-10-PCS |
| D7065ZZ             | Beam Radiation of Abdomen Lymphatics using Neutrons                            | Procedure     | ICD-10-PCS |
| D7066ZZ             | Beam Radiation of Abdomen Lymphatics using Neutron Capture                     | Procedure     | ICD-10-PCS |
| DW033Z0             | Beam Radiation of Abdomen using Electrons, Intraoperative                      | Procedure     | ICD-10-PCS |
| DW034ZZ             | Beam Radiation of Abdomen using Heavy Particles (Protons,Ions)                 | Procedure     | ICD-10-PCS |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code    | Description                                                                                                                                                         | Code Category | Code Type  |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|
| DWY37ZZ | Contact Radiation of Abdomen                                                                                                                                        | Procedure     | ICD-10-PCS |
| DW03    | Beam Radiation / Abdomen                                                                                                                                            | Procedure     | ICD-10-PCS |
| D706    | Beam Radiation / Lymphatics, Abdomen                                                                                                                                | Procedure     | ICD-10-PCS |
| D7061ZZ | Beam Radiation of Abdomen Lymphatics using Photons 1 - 10 MeV                                                                                                       | Procedure     | ICD-10-PCS |
| D7062ZZ | Beam Radiation of Abdomen Lymphatics using Photons >10 MeV                                                                                                          | Procedure     | ICD-10-PCS |
| D7063ZZ | Beam Radiation of Abdomen Lymphatics using Electrons                                                                                                                | Procedure     | ICD-10-PCS |
| DW031ZZ | Beam Radiation of Abdomen using Photons 1 - 10 MeV                                                                                                                  | Procedure     | ICD-10-PCS |
| DW033ZZ | Beam Radiation of Abdomen using Electrons                                                                                                                           | Procedure     | ICD-10-PCS |
| DW036ZZ | Beam Radiation of Abdomen using Neutron Capture                                                                                                                     | Procedure     | ICD-10-PCS |
| DW035ZZ | Beam Radiation of Abdomen using Neutrons                                                                                                                            | Procedure     | ICD-10-PCS |
| DW030ZZ | Beam Radiation of Abdomen using Photons <1 MeV                                                                                                                      | Procedure     | ICD-10-PCS |
| DW032ZZ | Beam Radiation of Abdomen using Photons >10 MeV                                                                                                                     | Procedure     | ICD-10-PCS |
| DWY3    | Other Radiation / Abdomen                                                                                                                                           | Procedure     | ICD-10-PCS |
| D7Y6    | Other Radiation / Lymphatics, Abdomen                                                                                                                               | Procedure     | ICD-10-PCS |
| DWY3FZZ | Plaque Radiation of Abdomen                                                                                                                                         | Procedure     | ICD-10-PCS |
| D7Y6FZZ | Plaque Radiation of Abdomen Lymphatics                                                                                                                              | Procedure     | ICD-10-PCS |
| 4165F   | 3-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT) received (PRCA)                                                       | Procedure     | CPT-2      |
| 0082T   | Stereotactic body radiation therapy, treatment delivery, one or more treatment areas, per day                                                                       | Procedure     | CPT-3      |
| 0083T   | Stereotactic body radiation therapy, treatment management, per day                                                                                                  | Procedure     | CPT-3      |
| 77373   | Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions       | Procedure     | CPT-4      |
| 77401   | Radiation treatment delivery, superficial and/or ortho voltage, per day                                                                                             | Procedure     | CPT-4      |
| 77402   | Radiation treatment delivery, => 1 MeV; simple                                                                                                                      | Procedure     | CPT-4      |
| 77403   | Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks; 6-10 MeV                                    | Procedure     | CPT-4      |
| 77404   | Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks; 11-19 MeV                                   | Procedure     | CPT-4      |
| 77406   | Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks; 20 MeV or greater                           | Procedure     | CPT-4      |
| 77407   | Radiation treatment delivery, => 1 MeV; intermediate                                                                                                                | Procedure     | CPT-4      |
| 77408   | Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks; 6-10 MeV                              | Procedure     | CPT-4      |
| 77409   | Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks; 11-19 MeV                             | Procedure     | CPT-4      |
| 77411   | Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks; 20 MeV or greater                     | Procedure     | CPT-4      |
| 77412   | Radiation treatment delivery, => 1 MeV; complex                                                                                                                     | Procedure     | CPT-4      |
| 77413   | Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 6-10 MeV | Procedure     | CPT-4      |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code    | Description                                                                                                                                                                  | Code Category | Code Type  |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|
| 77414   | Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 11-19 MeV         | Procedure     | CPT-4      |
| 77416   | Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 20 MeV or greater | Procedure     | CPT-4      |
| 77418   | Intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session      | Procedure     | CPT-4      |
| 77419   | Weekly radiation therapy management; conformal                                                                                                                               | Procedure     | CPT-4      |
| 77420   | WK RAD THERAP MGMT; SIMPL                                                                                                                                                    | Procedure     | CPT-4      |
| 77422   | High energy neutron radiation treatment delivery; single treatment area using a single port or parallel-opposed ports with no blocks or simple blocking                      | Procedure     | CPT-4      |
| 77423   | High energy neutron radiation treatment delivery, 1 or more isocenter(s) with coplanar or non-coplanar geometry with blocking and/or wedge, and/or compensator(s)            | Procedure     | CPT-4      |
| 77427   | Radiation treatment management, 5 treatments                                                                                                                                 | Procedure     | CPT-4      |
| 77431   | Radiation therapy management with complete course of therapy consisting of 1 or 2 fractions only                                                                             | Procedure     | CPT-4      |
| 77470   | Special treatment procedure (eg, total body irradiation, hemibody radiation, per oral or endocavitary irradiation)                                                           | Procedure     | CPT-4      |
| 77776   | Interstitial radiation source application; simple                                                                                                                            | Procedure     | CPT-4      |
| 77777   | Interstitial radiation source application; intermediate                                                                                                                      | Procedure     | CPT-4      |
| 77778   | Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed                                              | Procedure     | CPT-4      |
| 77789   | Surface application of low dose rate radionuclide source                                                                                                                     | Procedure     | CPT-4      |
| DTY07ZZ | Contact Radiation of Kidney                                                                                                                                                  | Procedure     | ICD-10-PCS |
| DT00    | Beam Radiation / Kidney                                                                                                                                                      | Procedure     | ICD-10-PCS |
| DT003Z0 | Beam Radiation of Kidney using Electrons, Intraoperative                                                                                                                     | Procedure     | ICD-10-PCS |
| DT004ZZ | Beam Radiation of Kidney using Heavy Particles (Protons,Ions)                                                                                                                | Procedure     | ICD-10-PCS |
| DT001ZZ | Beam Radiation of Kidney using Photons 1 - 10 MeV                                                                                                                            | Procedure     | ICD-10-PCS |
| DT003ZZ | Beam Radiation of Kidney using Electrons                                                                                                                                     | Procedure     | ICD-10-PCS |
| DT006ZZ | Beam Radiation of Kidney using Neutron Capture                                                                                                                               | Procedure     | ICD-10-PCS |
| DT005ZZ | Beam Radiation of Kidney using Neutrons                                                                                                                                      | Procedure     | ICD-10-PCS |
| DT000ZZ | Beam Radiation of Kidney using Photons <1 MeV                                                                                                                                | Procedure     | ICD-10-PCS |
| DT002ZZ | Beam Radiation of Kidney using Photons >10 MeV                                                                                                                               | Procedure     | ICD-10-PCS |
| DTY0CZZ | Intraoperative Radiation Therapy (IORT) of Kidney                                                                                                                            | Procedure     | ICD-10-PCS |
| DTY0    | Other Radiation / Kidney                                                                                                                                                     | Procedure     | ICD-10-PCS |
| DTY0FZZ | Plaque Radiation of Kidney                                                                                                                                                   | Procedure     | ICD-10-PCS |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code                | Description                                                                                                                                                                                           | Code Category | Code Type |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| <b>Chemotherapy</b> |                                                                                                                                                                                                       |               |           |
| 36489               | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, over age 2               | Procedure     | CPT-4     |
| 36491               | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, over age 2                    | Procedure     | CPT-4     |
| 96400               | Chemotherapy administration, subcutaneous or intramuscular, with or without local anesthesia                                                                                                          | Procedure     | CPT-4     |
| 96401               | Chemotherapy administration, subcutaneous or intramuscular; non-hormonal anti-neoplastic                                                                                                              | Procedure     | CPT-4     |
| 96402               | Chemotherapy administration, subcutaneous or intramuscular; hormonal anti-neoplastic                                                                                                                  | Procedure     | CPT-4     |
| 96405               | Chemotherapy administration; intralesional, up to and including 7 lesions                                                                                                                             | Procedure     | CPT-4     |
| 96406               | Chemotherapy administration; intralesional, more than 7 lesions                                                                                                                                       | Procedure     | CPT-4     |
| 96408               | Chemotherapy administration, intravenous; push technique                                                                                                                                              | Procedure     | CPT-4     |
| 96409               | Chemotherapy administration; intravenous, push technique, single or initial substance/drug                                                                                                            | Procedure     | CPT-4     |
| 96410               | Chemotherapy administration, intravenous; infusion technique, up to one hour                                                                                                                          | Procedure     | CPT-4     |
| 96411               | Chemotherapy administration; intravenous, push technique, each additional substance/drug (List separately in addition to code for primary procedure)                                                  | Procedure     | CPT-4     |
| 96412               | Chemotherapy administration, intravenous; infusion technique, one to 8 hours, each additional hour (List separately in addition to code for primary procedure)                                        | Procedure     | CPT-4     |
| 96413               | Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug                                                                                           | Procedure     | CPT-4     |
| 96414               | Chemotherapy administration, intravenous; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump                               | Procedure     | CPT-4     |
| 96415               | Chemotherapy administration, intravenous infusion technique; each additional hour (List separately in addition to code for primary procedure)                                                         | Procedure     | CPT-4     |
| 96416               | Chemotherapy administration, intravenous infusion technique; initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump                       | Procedure     | CPT-4     |
| 96417               | Chemotherapy administration, intravenous infusion technique; each additional sequential infusion (different substance/drug), up to 1 hour (List separately in addition to code for primary procedure) | Procedure     | CPT-4     |
| 96420               | Chemotherapy administration, intra-arterial; push technique                                                                                                                                           | Procedure     | CPT-4     |
| 96422               | Chemotherapy administration, intra-arterial; infusion technique, up to 1 hour                                                                                                                         | Procedure     | CPT-4     |
| 96423               | Chemotherapy administration, intra-arterial; infusion technique, each additional hour (List separately in addition to code for primary procedure)                                                     | Procedure     | CPT-4     |
| 96425               | Chemotherapy administration, intra-arterial; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable                                 | Procedure     | CPT-4     |
| 96440               | Chemotherapy administration into pleural cavity, requiring and including thoracentesis                                                                                                                | Procedure     | CPT-4     |



**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 96445       | Chemotherapy administration into peritoneal cavity, requiring and including peritoneocentesis                                                                                                                                                                       | Procedure            | CPT-4            |
| 96542       | Chemotherapy injection, subarachnoid or intraventricular via subcutaneous reservoir, single or multiple agents                                                                                                                                                      | Procedure            | CPT-4            |
| 96545       | Provision of chemotherapy agent                                                                                                                                                                                                                                     | Procedure            | CPT-4            |
| 96549       | Unlisted chemotherapy procedure                                                                                                                                                                                                                                     | Procedure            | CPT-4            |
| C8953       | Chemotherapy administration, intravenous; push technique                                                                                                                                                                                                            | Procedure            | HCPCS            |
| C8954       | Chemotherapy administration, intravenous; infusion technique, up to one hour                                                                                                                                                                                        | Procedure            | HCPCS            |
| C8955       | Chemotherapy administration, intravenous; infusion technique, each additional hour (List separately in addition to C8954)                                                                                                                                           | Procedure            | HCPCS            |
| G0355       | Chemotherapy administration, subcutaneous or intramuscular nonhormonal antineoplastic                                                                                                                                                                               | Procedure            | HCPCS            |
| G0359       | Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug                                                                                                                                                       | Procedure            | HCPCS            |
| G0360       | Each additional hour, one to eight hours (list separately in addition to code for primary procedure) use G0360 in conjunction with G0359                                                                                                                            | Procedure            | HCPCS            |
| G0361       | Initiation of prolonged chemotherapy infusion (more than eight hours), requiring use of a portable or implantable pump                                                                                                                                              | Procedure            | HCPCS            |
| G0362       | Each additional sequential infusion (different substance/drug), up to one hour (use with G0359)                                                                                                                                                                     | Procedure            | HCPCS            |
| G0363       | Irrigation of implanted venous access device for drug delivery systems (do not report G0363 if an injection or infusion is provided on the same day)                                                                                                                | Procedure            | HCPCS            |
| J8999       | Prescription drug, oral, chemotherapeutic, NOS                                                                                                                                                                                                                      | Procedure            | HCPCS            |
| Q0083       | Chemotherapy administration by other than infusion technique only (e.g., subcutaneous, intramuscular, push), per visit                                                                                                                                              | Procedure            | HCPCS            |
| Q0084       | Chemotherapy administration by infusion technique only, per visit                                                                                                                                                                                                   | Procedure            | HCPCS            |
| Q0085       | Chemotherapy administration by both infusion technique and other technique(s) (e.g., subcutaneous, intramuscular, push), per visit                                                                                                                                  | Procedure            | HCPCS            |
| S9329       | Home infusion therapy, chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem (do not use this code with S9330 or S9331) | Procedure            | HCPCS            |
| S9330       | Home infusion therapy, continuous (24 hours or more) chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per                   | Procedure            | HCPCS            |
| S9331       | Home infusion therapy, intermittent (less than 24 hours) chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per               | Procedure            | HCPCS            |
| 0519F       | Planned chemotherapy regimen, including at a minimum: drug(s) prescribed, dose, and duration, documented prior to initiation of a new treatment regimen (ONC)                                                                                                       | Procedure            | CPT-2            |
| 3317F       | Pathology report confirming malignancy documented in the medical record and reviewed prior to the initiation of chemotherapy (ONC)                                                                                                                                  | Procedure            | CPT-2            |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                          | Code Category | Code Type |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 36260 | Insertion of implantable intra-arterial infusion pump (eg, for chemotherapy of liver)                                                                                                                                                                                                                                                                                                                | Procedure     | CPT-4     |
| 36640 | Arterial catheterization for prolonged infusion therapy (chemotherapy), cutdown                                                                                                                                                                                                                                                                                                                      | Procedure     | CPT-4     |
| 36823 | Insertion of arterial and venous cannula(s) for isolated extracorporeal circulation including regional chemotherapy perfusion to an extremity, with or without hyperthermia, with removal of cannula(s) and repair of arteriotomy and venotomy                                                                                                                                                       | Procedure     | CPT-4     |
| 96446 | Chemotherapy administration into the peritoneal cavity via implanted port or catheter                                                                                                                                                                                                                                                                                                                | Procedure     | CPT-4     |
| 96500 | Chemotherapy Injection, Intravenous, Single Premixed Agent,                                                                                                                                                                                                                                                                                                                                          | Procedure     | CPT-4     |
| 96501 | Chemotherapy Injection, Intravenous, Single Premixed Agent,                                                                                                                                                                                                                                                                                                                                          | Procedure     | CPT-4     |
| 96504 | Chemotherapy Injection, Intravenous, Multiple Premixed Agents,                                                                                                                                                                                                                                                                                                                                       | Procedure     | CPT-4     |
| 96505 | Chemotherapy Injection, Intravenous, Multiple Premixed Agents,                                                                                                                                                                                                                                                                                                                                       | Procedure     | CPT-4     |
| 96508 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 96509 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 96510 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 96511 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 96512 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 96524 | Chemotherapy Injection, Complex, Administered By Physician,                                                                                                                                                                                                                                                                                                                                          | Procedure     | CPT-4     |
| 96526 | Chemotherapy Injection, Complex, Administered By Physician,                                                                                                                                                                                                                                                                                                                                          | Procedure     | CPT-4     |
| 96535 | Chemotherapy Injection, Complex, Requiring Thoracentesis                                                                                                                                                                                                                                                                                                                                             | Procedure     | CPT-4     |
| 96540 | Chemotherapy Injection, Intrathecal Via Reservoir, Single Or                                                                                                                                                                                                                                                                                                                                         | Procedure     | CPT-4     |
| G0070 | Professional services for the administration of intravenous chemotherapy or other intravenous highly complex drug or biological infusion for each infusion drug administration calendar day in the individual's home, each 15 min                                                                                                                                                                    | Procedure     | HCPCS     |
| G0090 | Professional services, initial visit, for the administration of intravenous chemotherapy or other highly complex infusion drug or biological for each infusion drug administration calendar day in the individual's home, each 15 min                                                                                                                                                                | Procedure     | HCPCS     |
| G0292 | Administration(s) of experimental drug(s) only in a medicare qualifying clinical trial (includes administration for chemotherapy and other types of therapy via infusion and/or other than infusion), per day                                                                                                                                                                                        | Procedure     | HCPCS     |
| G0498 | Chemotherapy administration, intravenous infusion technique; initiation of infusion in the office/clinic setting using office/clinic pump/supplies, with continuation of the infusion in the community setting (e.g., home, domiciliary, rest home or assisted living) using a portable pump provided by the office/clinic, includes follow up office/clinic visit at the conclusion of the infusion | Procedure     | HCPCS     |
| G8373 | Chemotherapy plan documented prior to chemotherapy administration                                                                                                                                                                                                                                                                                                                                    | Procedure     | HCPCS     |
| G8374 | Chemotherapy plan not documented prior to chemotherapy administration                                                                                                                                                                                                                                                                                                                                | Procedure     | HCPCS     |
| G9021 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                                                                                                                                                                                    | Procedure     | HCPCS     |
| G9022 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                                                                                                                                                                                      | Procedure     | HCPCS     |



**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code  | Description                                                                                                                                                                                                                 | Code Category | Code Type |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| G9023 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)          | Procedure     | HCPCS     |
| G9024 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)            | Procedure     | HCPCS     |
| G9025 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                             | Procedure     | HCPCS     |
| G9026 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                               | Procedure     | HCPCS     |
| G9027 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)                            | Procedure     | HCPCS     |
| G9028 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)                              | Procedure     | HCPCS     |
| G9029 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)         | Procedure     | HCPCS     |
| G9030 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)           | Procedure     | HCPCS     |
| G9031 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 3: quite a bit (for use in a Medicare approved demonstration project)        | Procedure     | HCPCS     |
| G9032 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 4: very much (for use in a Medicare-approved demonstration project)          | Procedure     | HCPCS     |
| G9826 | Patient transferred to practice after initiation of chemotherapy                                                                                                                                                            | Procedure     | HCPCS     |
| G9833 | Patient transfer to practice after initiation of chemotherapy                                                                                                                                                               | Procedure     | HCPCS     |
| J9999 | Not otherwise classified, antineoplastic drugs                                                                                                                                                                              | Procedure     | HCPCS     |
| M1156 | Patient received active chemotherapy any time during the measurement period                                                                                                                                                 | Procedure     | HCPCS     |
| M1395 | Patients receiving an initial chemotherapy regimen with a defined duration with the eligible clinician or group                                                                                                             | Procedure     | HCPCS     |
| M1402 | Patients receiving an initial chemotherapy regimen with a defined duration with the eligible clinician or group                                                                                                             | Procedure     | HCPCS     |
| Q0155 | Dronabinol (Syndros), 0.1 mg, oral, FDA-approved prescription anti-emetic, for use as a complete therapeutic substitute for an IV anti-emetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen | Procedure     | HCPCS     |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code  | Description                                                                                                                                                                                                                  | Code Category | Code Type |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| Q0161 | Chlorpromazine HCl, 5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen        | Procedure     | HCPCS     |
| Q0162 | Ondansetron 1 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                | Procedure     | HCPCS     |
| Q0163 | Diphenhydramine HCl, 50 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at time of chemotherapy treatment not to exceed a 48-hour dosage regimen           | Procedure     | HCPCS     |
| Q0164 | Prochlorperazine maleate, 5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen  | Procedure     | HCPCS     |
| Q0165 | Prochlorperazine maleate, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen | Procedure     | HCPCS     |
| Q0166 | Granisetron HCl, 1 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen           | Procedure     | HCPCS     |
| Q0167 | Dronabinol, 2.5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen              | Procedure     | HCPCS     |
| Q0168 | Dronabinol, 5 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                | Procedure     | HCPCS     |
| Q0169 | Promethazine HCl, 12.5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure     | HCPCS     |
| Q0170 | Promethazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen         | Procedure     | HCPCS     |
| Q0171 | Chlorpromazine HCl, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure     | HCPCS     |
| Q0172 | Chlorpromazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure     | HCPCS     |
| Q0173 | Trimethobenzamide HCl, 250 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen   | Procedure     | HCPCS     |
| Q0174 | Thiethylperazine maleate, 10 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen | Procedure     | HCPCS     |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code  | Description                                                                                                                                                                                                              | Code Category | Code Type |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| Q0175 | Perphenazine, 4 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen          | Procedure     | HCPCS     |
| Q0176 | Perphenazine, 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen          | Procedure     | HCPCS     |
| Q0177 | Hydroxyzine pamoate, 25 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen  | Procedure     | HCPCS     |
| Q0178 | Hydroxyzine pamoate, 50 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen  | Procedure     | HCPCS     |
| Q0179 | Ondansetron HCl 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen        | Procedure     | HCPCS     |
| Q0180 | Dolasetron mesylate, 100 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen | Procedure     | HCPCS     |
| Q0181 | Unspecified oral dosage form, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen      | Procedure     | HCPCS     |
| S5019 | Chemotherapy administration supplies (with pump), per diem                                                                                                                                                               | Procedure     | HCPCS     |
| S5020 | Chemotherapy administration supplies (without pump), per diem                                                                                                                                                            | Procedure     | HCPCS     |
| S9425 | Nursing services and all necessary supplies and additives for home iv chemotherapy (via iv push, gravity drip, stationary pump, ambulatory belt pump), per diem (hydration solution and drugs not included)              | Procedure     | HCPCS     |
| C9027 | Injection, pembrolizumab, 1 mg                                                                                                                                                                                           | Procedure     | HCPCS     |
| J9271 | Injection, pembrolizumab, 1 mg                                                                                                                                                                                           | Procedure     | HCPCS     |
| C9453 | Injection, nivolumab, 1 mg                                                                                                                                                                                               | Procedure     | HCPCS     |
| J9298 | Injection, nivolumab and relatlimab-rmbw, 3 mg/1 mg                                                                                                                                                                      | Procedure     | HCPCS     |
| J9299 | Injection, nivolumab, 1 mg                                                                                                                                                                                               | Procedure     | HCPCS     |
| J9228 | Injection, ipilimumab, 1 mg                                                                                                                                                                                              | Procedure     | HCPCS     |
| J9330 | Injection, temsirolimus, 1 mg                                                                                                                                                                                            | Procedure     | HCPCS     |
| C9142 | Injection, bevacizumab-maly, biosimilar, (Alymsys), 10 mg                                                                                                                                                                | Procedure     | HCPCS     |
| C9257 | Injection, bevacizumab, 0.25 mg                                                                                                                                                                                          | Procedure     | HCPCS     |
| J9035 | Injection, bevacizumab, 10 mg                                                                                                                                                                                            | Procedure     | HCPCS     |
| Q5107 | Injection, bevacizumab-awwb, biosimilar, (Mvasi), 10 mg                                                                                                                                                                  | Procedure     | HCPCS     |
| Q5118 | Injection, bevacizumab-bvzr, biosimilar, (Zirabev), 10 mg                                                                                                                                                                | Procedure     | HCPCS     |
| Q5126 | Injection, bevacizumab-maly, biosimilar, (Alymsys), 10 mg                                                                                                                                                                | Procedure     | HCPCS     |
| Q5129 | Injection, bevacizumab-adcd (Vegzelma), biosimilar, 10 mg                                                                                                                                                                | Procedure     | HCPCS     |
| 80169 | Everolimus                                                                                                                                                                                                               | Procedure     | CPT-4     |
| J7527 | Everolimus, oral, 0.25 mg                                                                                                                                                                                                | Procedure     | HCPCS     |

**Appendix C. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Outcomes in this Request**

| Code  | Description                                                  | Code      |           |
|-------|--------------------------------------------------------------|-----------|-----------|
|       |                                                              | Category  | Code Type |
| J8561 | Everolimus, oral, 0.25 mg                                    | Procedure | HCPCS     |
| J9214 | Injection, interferon, alfa-2b, recombinant, 1 million units | Procedure | HCPCS     |
| S0148 | Injection, PEGylated interferon alfa-2B, 10 mcg              | Procedure | HCPCS     |

**Note:** National Drug Codes (NDCs) for products in Appendix D are also searched for in the Procedure table as part of the outcome algorithms.

**Appendix D. List of Generic and Brand Names of Medical Products for Renal Cell Carcinoma Chemotherapies Used in the Outcome Identification Algorithm in this Request**

| Generic Name                             | Brand Name                  |
|------------------------------------------|-----------------------------|
| Renal Cell Carcinoma - Narrow Definition |                             |
| aldesleukin                              | proleukin                   |
| avelumab                                 | bavencio                    |
| axitinib                                 | inlyta                      |
| bevacizumab                              | avastin                     |
| bevacizumab-adcd                         | vegzelma                    |
| bevacizumab-awwb                         | mvasi                       |
| bevacizumab-bvzr                         | zirabev                     |
| bevacizumab-maly                         | alymsys                     |
| cabozantinib s-malate                    | cabometyx                   |
| cabozantinib s-malate                    | cometriq                    |
| everolimus                               | afinitor                    |
| everolimus                               | afinitor disperz            |
| everolimus                               | everolimus (antineoplastic) |
| everolimus                               | torpenz                     |
| interferon alfa-2b,recomb.               | Intron A                    |
| ipilimumab                               | yervoy                      |
| lenvatinib mesylate                      | lenvima                     |
| nivolumab                                | opdivo                      |
| nivolumab-hyaluronidase-nvhy             | opdivo qvantig              |
| nivolumab-relatlimab-rmbw                | opdualag                    |
| pazopanib HCl                            | pazopanib                   |
| pazopanib HCl                            | votrient                    |
| peginterferon alfa-2b                    | sylatron                    |
| peginterferon alfa-2b                    | sylatron 4-Pack             |
| pembrolizumab                            | keytruda                    |
| ropeginterferon alfa-2b-njft             | besremi                     |
| sorafenib tosylate                       | nexavar                     |
| sorafenib tosylate                       | sorafenib                   |
| sunitinib malate                         | sunitinib malate            |
| sunitinib malate                         | sutent                      |
| temsirolimus                             | temsirolimus                |
| temsirolimus                             | torisel                     |

**Appendix E. List of Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Generic Name</b>                                                                      | <b>Brand Name</b>                      |
|------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Alogliptin</b>                                                                        |                                        |
| alogliptin                                                                               | alogliptin and metformin hydrochloride |
| alogliptin                                                                               | alogliptin and pioglitazone            |
| alogliptin                                                                               | kazano                                 |
| alogliptin                                                                               | oseni                                  |
| alogliptin and metformin hydrochloride                                                   | nesina                                 |
| alogliptin and metformin hydrochloride                                                   | oseni                                  |
| alogliptin and pioglitazone                                                              | alogliptin and metformin hydrochloride |
| alogliptin and pioglitazone                                                              | alogliptin and pioglitazone            |
| alogliptin and pioglitazone                                                              | kazano                                 |
| alogliptin and pioglitazone                                                              | nesina                                 |
| alogliptin benzoate                                                                      | alogliptin                             |
| alogliptin benzoate                                                                      | nesina                                 |
| alogliptin benzoate/metformin HCl                                                        | alogliptin-metformin                   |
| alogliptin benzoate/metformin HCl                                                        | kazano                                 |
| alogliptin benzoate/pioglitazone HCl                                                     | alogliptin-pioglitazone                |
| alogliptin benzoate/pioglitazone HCl                                                     | oseni                                  |
| <b>Alpha Glucosidase Inhibitors</b>                                                      |                                        |
| acarbose                                                                                 | acarbose                               |
| acarbose                                                                                 | precose                                |
| miglitol                                                                                 | glyset                                 |
| miglitol                                                                                 | miglitol                               |
| <b>Bexagliflozin</b>                                                                     |                                        |
| bexagliflozin                                                                            | bexagliflozin                          |
| bexagliflozin                                                                            | brenzavvy                              |
| <b>Canagliflozin</b>                                                                     |                                        |
| canagliflozin                                                                            | invokana                               |
| canagliflozin/metformin HCl                                                              | invokamet                              |
| canagliflozin/metformin HCl                                                              | invokamet XR                           |
| <b>Dapagliflozin</b>                                                                     |                                        |
| dapagliflozin                                                                            | xigduo                                 |
| dapagliflozin and metformin hydrochloride                                                | farxiga                                |
| dapagliflozin propanediol                                                                | dapagliflozin propanediol              |
| dapagliflozin propanediol                                                                | farxiga                                |
| dapagliflozin propanediol/metformin HCl                                                  | dapaglifloz propaned-metformin         |
| dapagliflozin propanediol/metformin HCl                                                  | xigduo XR                              |
| <b>Dipeptidyl Peptidase-4 (DPP-4)/Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors</b> |                                        |
| dapagliflozin propanediol/saxagliptin HCl                                                | qtern                                  |
| empagliflozin, linagliptin, metformin hydrochloride                                      | trijardy XR                            |
| empagliflozin/linagliptin                                                                | glyxambi                               |
| empagliflozin/linagliptin/metformin HCl                                                  | trijardy XR                            |
| ertugliflozin and sitagliptin                                                            | steglujan                              |
| ertugliflozin pidolate/sitagliptin phosphate                                             | steglujan                              |

**Appendix E. List of Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Generic Name</b>                                                                                                             | <b>Brand Name</b> |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>Empagliflozin</b>                                                                                                            |                   |
| empagliflozin                                                                                                                   | jardiance         |
| empagliflozin                                                                                                                   | trijardy xr       |
| empagliflozin and metformin hydrochloride                                                                                       | jardiance         |
| empagliflozin/metformin HCl                                                                                                     | synjardy          |
| empagliflozin/metformin HCl                                                                                                     | synjardy xr       |
| <b>Ertugliflozin</b>                                                                                                            |                   |
| ertugliflozin                                                                                                                   | steglatro         |
| ertugliflozin and metformin hydrochloride                                                                                       | segluromet        |
| ertugliflozin pidolate                                                                                                          | steglatro         |
| ertugliflozin pidolate/metformin HCl                                                                                            | segluromet        |
| <b>Glucagon-Like Peptide-1 Receptor Agonist (GLP1-RA), Including Glucose-Dependent Insulinotropic Polypeptide (GIP)/GLP-1RA</b> |                   |
| albiglutide                                                                                                                     | tanzeum           |
| dulaglutide                                                                                                                     | trulicity         |
| exenatide                                                                                                                       | byetta            |
| exenatide                                                                                                                       | exenatide         |
| exenatide microspheres                                                                                                          | bydureon          |
| exenatide microspheres                                                                                                          | bydureon bcise    |
| insulin degludec/liraglutide                                                                                                    | xultophy 100/3.6  |
| insulin glargine and lixisenatide                                                                                               | soliqua 100/33    |
| insulin glargine,human recombinant analog/lixisenatide                                                                          | soliqua 100/33    |
| liraglutide                                                                                                                     | liraglutide       |
| liraglutide                                                                                                                     | saxenda           |
| liraglutide                                                                                                                     | victoza           |
| liraglutide                                                                                                                     | victoza 2-pak     |
| liraglutide                                                                                                                     | victoza 3-pak     |
| lixisenatide                                                                                                                    | adlyxin           |
| oral semaglutide                                                                                                                | rybelsus          |
| semaglutide                                                                                                                     | ozempic           |
| semaglutide                                                                                                                     | rybelsus          |
| semaglutide                                                                                                                     | semaglutide       |
| semaglutide                                                                                                                     | wegovy            |
| tirzepatide                                                                                                                     | mounjaro          |
| tirzepatide                                                                                                                     | tirzepatide       |
| tirzepatide                                                                                                                     | zepbound          |
| <b>Linagliptin</b>                                                                                                              |                   |
| linagliptin                                                                                                                     | tradjenta         |
| linagliptin and metformin hydrochloride                                                                                         | glyxambi          |
| linagliptin and metformin hydrochloride                                                                                         | jentadueto XR     |
| linagliptin and metformin hydrochloride                                                                                         | tradjenta         |
| linagliptin/metformin HCl                                                                                                       | jentadueto        |
| linagliptin/metformin HCl                                                                                                       | jentadueto XR     |
| <b>Meglitinides</b>                                                                                                             |                   |
| nateglinide                                                                                                                     | nateglinide       |
| nateglinide                                                                                                                     | starlix           |
| repaglinide                                                                                                                     | prandin           |
| repaglinide                                                                                                                     | repaglinide       |

**Appendix E. List of Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

| Generic Name                            | Brand Name                     |
|-----------------------------------------|--------------------------------|
| repaglinide/metformin HCl               | prandimet                      |
| repaglinide/metformin HCl               | repaglinide-metformin          |
| <b>Metformin</b>                        |                                |
| alogliptin benzoate/metformin HCl       | alogliptin-metformin           |
| alogliptin benzoate/metformin HCl       | kazano                         |
| canagliflozin/metformin HCl             | iinvokamet XR                  |
| canagliflozin/metformin HCl             | invokamet                      |
| dapagliflozin propanediol/metformin HCl | dapaglifloz propaned-metformin |
| dapagliflozin propanediol/metformin HCl | xigduo XR                      |
| empagliflozin/linagliptin/metformin HCl | trijardy XR                    |
| empagliflozin/metformin HCl             | synjardy                       |
| empagliflozin/metformin HCl             | synjardy XR                    |
| ertugliflozin pidolate/metformin HCl    | segluromet                     |
| glipizide/metformin HCl                 | glipizide-metformin            |
| glyburide/metformin HCl                 | glucovance                     |
| glyburide/metformin HCl                 | glyburide-metformin            |
| linagliptin/metformin HCl               | jentadueto                     |
| linagliptin/metformin HCl               | jentadueto XR                  |
| metformin HCl                           | fortamet                       |
| metformin HCl                           | glucophage                     |
| metformin HCl                           | glucophage XR                  |
| metformin HCl                           | glumetza                       |
| metformin HCl                           | metformin                      |
| metformin HCl                           | riomet                         |
| metformin HCl                           | riomet ER                      |
| metformin HCl/blood sugar diagnostic    | dm2                            |
| pioglitazone HCl/metformin HCl          | actoplus MET                   |
| pioglitazone HCl/metformin HCl          | actoplus met XR                |
| pioglitazone HCl/metformin HCl          | pioglitazone-metformin         |
| repaglinide/metformin HCl               | prandimet                      |
| repaglinide/metformin HCl               | repaglinide-metformin          |
| rosiglitazone maleate/metformin HCl     | avandamet                      |
| saxagliptin HCl/metformin HCl           | kombiglyze XR                  |
| saxagliptin HCl/metformin HCl           | saxagliptin-metformin          |
| sitagliptin phosphate/metformin HCl     | janumet                        |
| sitagliptin phosphate/metformin HCl     | janumet XR                     |
| sitagliptin/metformin HCl               | sitagliptin-metformin          |
| sitagliptin/metformin HCl               | zituvimet                      |
| sitagliptin/metformin HCl               | zituvimet XR                   |
| <b>Saxagliptin</b>                      |                                |
| saxagliptin                             | onglyza                        |
| saxagliptin                             | saxagliptin                    |
| saxagliptin HCl                         | onglyza                        |
| saxagliptin HCl                         | saxagliptin                    |
| saxagliptin HCl/metformin HCl           | kombiglyze XR                  |
| saxagliptin HCl/metformin HCl           | saxagliptin-metformin          |



**Appendix E. List of Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

| Generic Name                            | Brand Name                              |
|-----------------------------------------|-----------------------------------------|
| <b>Sitagliptin</b>                      |                                         |
| sitagliptin                             | januvia                                 |
| sitagliptin                             | sitagliptin                             |
| sitagliptin                             | zituvio                                 |
| sitagliptin and metformin hydrochloride | janumet                                 |
| sitagliptin and metformin hydrochloride | sitagliptin and metformin hydrochloride |
| sitagliptin and metformin hydrochloride | zituvimet                               |
| sitagliptin and metformin hydrochloride | zituvimet XR                            |
| sitagliptin hydrochloride oral          | januvia                                 |
| sitagliptin phosphate                   | januvia                                 |
| sitagliptin phosphate/metformin HCl     | janumet                                 |
| sitagliptin phosphate/metformin HCl     | janumet XR                              |
| sitagliptin phosphate/simvastatin       | juvisync                                |
| <b>Sotagliflozin</b>                    |                                         |
| sotagliflozin                           | inpefa                                  |
| <b>Sulfonylureas</b>                    |                                         |
| chlorpropamide                          | chlorpropamide                          |
| glimepiride                             | amaryl                                  |
| glimepiride                             | glimepiride                             |
| glipizide                               | glipizide                               |
| glipizide                               | glucotrol                               |
| glipizide                               | glucotrol XL                            |
| glipizide/metformin HCl                 | glipizide-metformin                     |
| glyburide                               | diabeta                                 |
| glyburide                               | glyburide                               |
| glyburide,micronized                    | glyburide micronized                    |
| glyburide,micronized                    | glynase                                 |
| glyburide/metformin HCl                 | glucovance                              |
| glyburide/metformin HCl                 | glyburide-metformin                     |
| pioglitazone HCl/glimepiride            | duetact                                 |
| pioglitazone HCl/glimepiride            | pioglitazone-glimepiride                |
| rosiglitazone maleate/glimepiride       | avandaryl                               |
| tolazamide                              | tolazamide                              |
| tolbutamide                             | tolbutamide                             |
| <b>Thiazolidinedione</b>                |                                         |
| alogliptin benzoate/pioglitazone HCl    | alogliptin-pioglitazone                 |
| alogliptin benzoate/pioglitazone HCl    | oseni                                   |
| pioglitazone HCl                        | actos                                   |
| pioglitazone HCl                        | pioglitazone                            |
| pioglitazone HCl/glimepiride            | duetact                                 |
| pioglitazone HCl/glimepiride            | pioglitazone-glimepiride                |
| pioglitazone HCl/metformin HCl          | actoplus MET                            |
| pioglitazone HCl/metformin HCl          | actoplus met XR                         |
| pioglitazone HCl/metformin HCl          | pioglitazone-metformin                  |
| rosiglitazone maleate                   | avandia                                 |
| rosiglitazone maleate/glimepiride       | avandaryl                               |
| rosiglitazone maleate/metformin HCl     | avandamet                               |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| Code                                         | Description                                                                                                                                          | Code Category | Code Type  |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|
| <b>Chronic Kidney Disease (Stages III-V)</b> |                                                                                                                                                      |               |            |
| 403.01                                       | Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease                                       | Diagnosis     | ICD-9-CM   |
| 403.11                                       | Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease                                          | Diagnosis     | ICD-9-CM   |
| 403.91                                       | Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease                                     | Diagnosis     | ICD-9-CM   |
| 404.02                                       | Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease   | Diagnosis     | ICD-9-CM   |
| 404.03                                       | Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease      | Diagnosis     | ICD-9-CM   |
| 404.12                                       | Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease      | Diagnosis     | ICD-9-CM   |
| 404.13                                       | Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease              | Diagnosis     | ICD-9-CM   |
| 404.92                                       | Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease | Diagnosis     | ICD-9-CM   |
| 404.93                                       | Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease         | Diagnosis     | ICD-9-CM   |
| 585.3                                        | Chronic kidney disease, Stage III (moderate)                                                                                                         | Diagnosis     | ICD-9-CM   |
| 585.4                                        | Chronic kidney disease, Stage IV (severe)                                                                                                            | Diagnosis     | ICD-9-CM   |
| 585.5                                        | Chronic kidney disease, Stage V                                                                                                                      | Diagnosis     | ICD-9-CM   |
| 585.6                                        | End stage renal disease                                                                                                                              | Diagnosis     | ICD-9-CM   |
| I12.0                                        | Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease                                                   | Diagnosis     | ICD-10-CM  |
| I13.11                                       | Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease                 | Diagnosis     | ICD-10-CM  |
| I13.2                                        | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease                 | Diagnosis     | ICD-10-CM  |
| N18.3                                        | Chronic kidney disease, stage 3 (moderate)                                                                                                           | Diagnosis     | ICD-10-CM  |
| N18.30                                       | Chronic kidney disease, stage 3 unspecified                                                                                                          | Diagnosis     | ICD-10-CM  |
| N18.31                                       | Chronic kidney disease, stage 3a                                                                                                                     | Diagnosis     | ICD-10-CM  |
| N18.32                                       | Chronic kidney disease, stage 3b                                                                                                                     | Diagnosis     | ICD-10-CM  |
| N18.4                                        | Chronic kidney disease, stage 4 (severe)                                                                                                             | Diagnosis     | ICD-10-CM  |
| N18.5                                        | Chronic kidney disease, stage 5                                                                                                                      | Diagnosis     | ICD-10-CM  |
| N18.6                                        | End stage renal disease                                                                                                                              | Diagnosis     | ICD-10-CM  |
| <b>Dialysis</b>                              |                                                                                                                                                      |               |            |
| 031209D                                      | Bypass Innominate Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach                                                              | Procedure     | ICD-10-PCS |
| 031209F                                      | Bypass Innominate Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach                                                              | Procedure     | ICD-10-PCS |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                   | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 03120AD     | Bypass Innominate Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 03120AF     | Bypass Innominate Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 03120JD     | Bypass Innominate Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                  | Procedure            | ICD-10-PCS       |
| 03120JF     | Bypass Innominate Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                  | Procedure            | ICD-10-PCS       |
| 03120KD     | Bypass Innominate Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach       | Procedure            | ICD-10-PCS       |
| 03120KF     | Bypass Innominate Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach       | Procedure            | ICD-10-PCS       |
| 03120ZD     | Bypass Innominate Artery to Upper Arm Vein, Open Approach                                            | Procedure            | ICD-10-PCS       |
| 03120ZF     | Bypass Innominate Artery to Lower Arm Vein, Open Approach                                            | Procedure            | ICD-10-PCS       |
| 031309D     | Bypass Right Subclavian Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach        | Procedure            | ICD-10-PCS       |
| 031309F     | Bypass Right Subclavian Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach        | Procedure            | ICD-10-PCS       |
| 03130AD     | Bypass Right Subclavian Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach      | Procedure            | ICD-10-PCS       |
| 03130AF     | Bypass Right Subclavian Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach      | Procedure            | ICD-10-PCS       |
| 03130JD     | Bypass Right Subclavian Artery to Upper Arm Vein with Synthetic Substitute, Open Approach            | Procedure            | ICD-10-PCS       |
| 03130JF     | Bypass Right Subclavian Artery to Lower Arm Vein with Synthetic Substitute, Open Approach            | Procedure            | ICD-10-PCS       |
| 03130KD     | Bypass Right Subclavian Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach | Procedure            | ICD-10-PCS       |
| 03130KF     | Bypass Right Subclavian Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach | Procedure            | ICD-10-PCS       |
| 03130ZD     | Bypass Right Subclavian Artery to Upper Arm Vein, Open Approach                                      | Procedure            | ICD-10-PCS       |
| 03130ZF     | Bypass Right Subclavian Artery to Lower Arm Vein, Open Approach                                      | Procedure            | ICD-10-PCS       |
| 031409D     | Bypass Left Subclavian Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach         | Procedure            | ICD-10-PCS       |
| 031409F     | Bypass Left Subclavian Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach         | Procedure            | ICD-10-PCS       |
| 03140AD     | Bypass Left Subclavian Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach       | Procedure            | ICD-10-PCS       |
| 03140AF     | Bypass Left Subclavian Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach       | Procedure            | ICD-10-PCS       |
| 03140JD     | Bypass Left Subclavian Artery to Upper Arm Vein with Synthetic Substitute, Open Approach             | Procedure            | ICD-10-PCS       |
| 03140JF     | Bypass Left Subclavian Artery to Lower Arm Vein with Synthetic Substitute, Open Approach             | Procedure            | ICD-10-PCS       |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                     | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 03140KD     | Bypass Left Subclavian Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach    | Procedure            | ICD-10-PCS       |
| 03140KF     | Bypass Left Subclavian Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach    | Procedure            | ICD-10-PCS       |
| 03140ZD     | Bypass Left Subclavian Artery to Upper Arm Vein, Open Approach                                         | Procedure            | ICD-10-PCS       |
| 03140ZF     | Bypass Left Subclavian Artery to Lower Arm Vein, Open Approach                                         | Procedure            | ICD-10-PCS       |
| 031509D     | Bypass Right Axillary Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 031509F     | Bypass Right Axillary Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 031509V     | Bypass Right Axillary Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach        | Procedure            | ICD-10-PCS       |
| 03150AD     | Bypass Right Axillary Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure            | ICD-10-PCS       |
| 03150AF     | Bypass Right Axillary Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure            | ICD-10-PCS       |
| 03150AV     | Bypass Right Axillary Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach      | Procedure            | ICD-10-PCS       |
| 03150JD     | Bypass Right Axillary Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                | Procedure            | ICD-10-PCS       |
| 03150JF     | Bypass Right Axillary Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                | Procedure            | ICD-10-PCS       |
| 03150JV     | Bypass Right Axillary Artery to Superior Vena Cava with Synthetic Substitute, Open Approach            | Procedure            | ICD-10-PCS       |
| 03150KD     | Bypass Right Axillary Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure            | ICD-10-PCS       |
| 03150KF     | Bypass Right Axillary Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure            | ICD-10-PCS       |
| 03150KV     | Bypass Right Axillary Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach | Procedure            | ICD-10-PCS       |
| 03150ZD     | Bypass Right Axillary Artery to Upper Arm Vein, Open Approach                                          | Procedure            | ICD-10-PCS       |
| 03150ZF     | Bypass Right Axillary Artery to Lower Arm Vein, Open Approach                                          | Procedure            | ICD-10-PCS       |
| 03150ZV     | Bypass Right Axillary Artery to Superior Vena Cava, Open Approach                                      | Procedure            | ICD-10-PCS       |
| 031609D     | Bypass Left Axillary Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach             | Procedure            | ICD-10-PCS       |
| 031609F     | Bypass Left Axillary Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach             | Procedure            | ICD-10-PCS       |
| 031609V     | Bypass Left Axillary Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach         | Procedure            | ICD-10-PCS       |
| 03160AD     | Bypass Left Axillary Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach           | Procedure            | ICD-10-PCS       |
| 03160AF     | Bypass Left Axillary Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach           | Procedure            | ICD-10-PCS       |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                     | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 03160AV     | Bypass Left Axillary Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach       | Procedure            | ICD-10-PCS       |
| 03160JD     | Bypass Left Axillary Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                 | Procedure            | ICD-10-PCS       |
| 03160JF     | Bypass Left Axillary Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                 | Procedure            | ICD-10-PCS       |
| 03160JV     | Bypass Left Axillary Artery to Superior Vena Cava with Synthetic Substitute, Open Approach             | Procedure            | ICD-10-PCS       |
| 03160KD     | Bypass Left Axillary Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach      | Procedure            | ICD-10-PCS       |
| 03160KF     | Bypass Left Axillary Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach      | Procedure            | ICD-10-PCS       |
| 03160KV     | Bypass Left Axillary Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach  | Procedure            | ICD-10-PCS       |
| 03160ZD     | Bypass Left Axillary Artery to Upper Arm Vein, Open Approach                                           | Procedure            | ICD-10-PCS       |
| 03160ZF     | Bypass Left Axillary Artery to Lower Arm Vein, Open Approach                                           | Procedure            | ICD-10-PCS       |
| 03160ZV     | Bypass Left Axillary Artery to Superior Vena Cava, Open Approach                                       | Procedure            | ICD-10-PCS       |
| 031709D     | Bypass Right Brachial Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 031709F     | Bypass Right Brachial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 031709V     | Bypass Right Brachial Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach        | Procedure            | ICD-10-PCS       |
| 03170AD     | Bypass Right Brachial Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure            | ICD-10-PCS       |
| 03170AF     | Bypass Right Brachial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure            | ICD-10-PCS       |
| 03170AV     | Bypass Right Brachial Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach      | Procedure            | ICD-10-PCS       |
| 03170JD     | Bypass Right Brachial Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                | Procedure            | ICD-10-PCS       |
| 03170JF     | Bypass Right Brachial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                | Procedure            | ICD-10-PCS       |
| 03170JV     | Bypass Right Brachial Artery to Superior Vena Cava with Synthetic Substitute, Open Approach            | Procedure            | ICD-10-PCS       |
| 03170KD     | Bypass Right Brachial Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure            | ICD-10-PCS       |
| 03170KF     | Bypass Right Brachial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure            | ICD-10-PCS       |
| 03170KV     | Bypass Right Brachial Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach | Procedure            | ICD-10-PCS       |
| 03170ZD     | Bypass Right Brachial Artery to Upper Arm Vein, Open Approach                                          | Procedure            | ICD-10-PCS       |
| 03170ZF     | Bypass Right Brachial Artery to Lower Arm Vein, Open Approach                                          | Procedure            | ICD-10-PCS       |
| 03170ZV     | Bypass Right Brachial Artery to Superior Vena Cava, Open Approach                                      | Procedure            | ICD-10-PCS       |
| 031809D     | Bypass Left Brachial Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach             | Procedure            | ICD-10-PCS       |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                    | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 031809F     | Bypass Left Brachial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 031809V     | Bypass Left Brachial Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach        | Procedure            | ICD-10-PCS       |
| 03180AD     | Bypass Left Brachial Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure            | ICD-10-PCS       |
| 03180AF     | Bypass Left Brachial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure            | ICD-10-PCS       |
| 03180AV     | Bypass Left Brachial Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach      | Procedure            | ICD-10-PCS       |
| 03180JD     | Bypass Left Brachial Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                | Procedure            | ICD-10-PCS       |
| 03180JF     | Bypass Left Brachial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                | Procedure            | ICD-10-PCS       |
| 03180JV     | Bypass Left Brachial Artery to Superior Vena Cava with Synthetic Substitute, Open Approach            | Procedure            | ICD-10-PCS       |
| 03180KD     | Bypass Left Brachial Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure            | ICD-10-PCS       |
| 03180KF     | Bypass Left Brachial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure            | ICD-10-PCS       |
| 03180KV     | Bypass Left Brachial Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach | Procedure            | ICD-10-PCS       |
| 03180ZD     | Bypass Left Brachial Artery to Upper Arm Vein, Open Approach                                          | Procedure            | ICD-10-PCS       |
| 03180ZF     | Bypass Left Brachial Artery to Lower Arm Vein, Open Approach                                          | Procedure            | ICD-10-PCS       |
| 03180ZV     | Bypass Left Brachial Artery to Superior Vena Cava, Open Approach                                      | Procedure            | ICD-10-PCS       |
| 031909F     | Bypass Right Ulnar Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach              | Procedure            | ICD-10-PCS       |
| 03190AF     | Bypass Right Ulnar Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach            | Procedure            | ICD-10-PCS       |
| 03190JF     | Bypass Right Ulnar Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                  | Procedure            | ICD-10-PCS       |
| 03190KF     | Bypass Right Ulnar Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach       | Procedure            | ICD-10-PCS       |
| 03190ZF     | Bypass Right Ulnar Artery to Lower Arm Vein, Open Approach                                            | Procedure            | ICD-10-PCS       |
| 031A09F     | Bypass Left Ulnar Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach               | Procedure            | ICD-10-PCS       |
| 031A0AF     | Bypass Left Ulnar Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach             | Procedure            | ICD-10-PCS       |
| 031A0JF     | Bypass Left Ulnar Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                   | Procedure            | ICD-10-PCS       |
| 031A0KF     | Bypass Left Ulnar Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach        | Procedure            | ICD-10-PCS       |
| 031A0ZF     | Bypass Left Ulnar Artery to Lower Arm Vein, Open Approach                                             | Procedure            | ICD-10-PCS       |
| 031B09F     | Bypass Right Radial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach             | Procedure            | ICD-10-PCS       |



**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                            | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 031B0AF     | Bypass Right Radial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach                                                                   | Procedure            | ICD-10-PCS       |
| 031B0JF     | Bypass Right Radial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                                                                         | Procedure            | ICD-10-PCS       |
| 031B0KF     | Bypass Right Radial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach                                                              | Procedure            | ICD-10-PCS       |
| 031B0ZF     | Bypass Right Radial Artery to Lower Arm Vein, Open Approach                                                                                                   | Procedure            | ICD-10-PCS       |
| 031C09F     | Bypass Left Radial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach                                                                      | Procedure            | ICD-10-PCS       |
| 031C0AF     | Bypass Left Radial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach                                                                    | Procedure            | ICD-10-PCS       |
| 031C0JF     | Bypass Left Radial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                                                                          | Procedure            | ICD-10-PCS       |
| 031C0KF     | Bypass Left Radial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach                                                               | Procedure            | ICD-10-PCS       |
| 031C0ZF     | Bypass Left Radial Artery to Lower Arm Vein, Open Approach                                                                                                    | Procedure            | ICD-10-PCS       |
| 03PY07Z     | Removal of Autologous Tissue Substitute from Upper Artery, Open Approach                                                                                      | Procedure            | ICD-10-PCS       |
| 03PY0JZ     | Removal of Synthetic Substitute from Upper Artery, Open Approach                                                                                              | Procedure            | ICD-10-PCS       |
| 03PY0KZ     | Removal of Nonautologous Tissue Substitute from Upper Artery, Open Approach                                                                                   | Procedure            | ICD-10-PCS       |
| 03PY37Z     | Removal of Autologous Tissue Substitute from Upper Artery, Percutaneous Approach                                                                              | Procedure            | ICD-10-PCS       |
| 03PY3JZ     | Removal of Synthetic Substitute from Upper Artery, Percutaneous Approach                                                                                      | Procedure            | ICD-10-PCS       |
| 03PY3KZ     | Removal of Nonautologous Tissue Substitute from Upper Artery, Percutaneous Approach                                                                           | Procedure            | ICD-10-PCS       |
| 03PY47Z     | Removal of Autologous Tissue Substitute from Upper Artery, Percutaneous Endoscopic Approach                                                                   | Procedure            | ICD-10-PCS       |
| 03PY4JZ     | Removal of Synthetic Substitute from Upper Artery, Percutaneous Endoscopic Approach                                                                           | Procedure            | ICD-10-PCS       |
| 03PY4KZ     | Removal of Nonautologous Tissue Substitute from Upper Artery, Percutaneous Endoscopic Approach                                                                | Procedure            | ICD-10-PCS       |
| 0505F       | Hemodialysis plan of care documented (ESRD, P-ESRD)                                                                                                           | Procedure            | CPT-2            |
| 0507F       | Peritoneal dialysis plan of care documented (ESRD)                                                                                                            | Procedure            | CPT-2            |
| 05HY33Z     | Insertion of Infusion Device into Upper Vein, Percutaneous Approach                                                                                           | Procedure            | ICD-10-PCS       |
| 06HY33Z     | Insertion of Infusion Device into Lower Vein, Percutaneous Approach                                                                                           | Procedure            | ICD-10-PCS       |
| 08923ZZ     | Drainage of Right Anterior Chamber, Percutaneous Approach                                                                                                     | Procedure            | ICD-10-PCS       |
| 08933ZZ     | Drainage of Left Anterior Chamber, Percutaneous Approach                                                                                                      | Procedure            | ICD-10-PCS       |
| 35686       | Creation of distal arteriovenous fistula during lower extremity bypass surgery (non-hemodialysis) (List separately in addition to code for primary procedure) | Procedure            | CPT-4            |
| 35875       | Thrombectomy of arterial or venous graft (other than hemodialysis graft or fistula);                                                                          | Procedure            | CPT-4            |
| 35876       | Thrombectomy of arterial or venous graft (other than hemodialysis graft or fistula); with revision of arterial or venous graft                                | Procedure            | CPT-4            |
| 36145       | Introduction of needle or intracatheter; arteriovenous shunt created for dialysis (cannula, fistula, or graft)                                                | Procedure            | CPT-4            |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 36147       | Introduction of needle and/or catheter, arteriovenous shunt created for dialysis (graft/fistula); initial access with complete radiological evaluation of dialysis access, including fluoroscopy, image documentation and report (includes access of shunt, injection[s] of contrast, and all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava)                         | Procedure            | CPT-4            |
| 36148       | Introduction of needle and/or catheter, arteriovenous shunt created for dialysis (graft/fistula); additional access for therapeutic intervention (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                          | Procedure            | CPT-4            |
| 36488       | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, age 2 years or under                                                                                                                                                                                                                                                                     | Procedure            | CPT-4            |
| 36489       | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, over age 2                                                                                                                                                                                                                                                                               | Procedure            | CPT-4            |
| 36490       | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, age 2 years or under                                                                                                                                                                                                                                                                          | Procedure            | CPT-4            |
| 36491       | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, over age 2                                                                                                                                                                                                                                                                                    | Procedure            | CPT-4            |
| 36800       | Insertion of cannula for hemodialysis, other purpose (separate procedure); vein to vein                                                                                                                                                                                                                                                                                                                                                                               | Procedure            | CPT-4            |
| 36810       | Insertion of cannula for hemodialysis, other purpose (separate procedure); arteriovenous, external (Scribner type)                                                                                                                                                                                                                                                                                                                                                    | Procedure            | CPT-4            |
| 36815       | Insertion of cannula for hemodialysis, other purpose (separate procedure); arteriovenous, external revision, or closure                                                                                                                                                                                                                                                                                                                                               | Procedure            | CPT-4            |
| 36818       | Arteriovenous anastomosis, open; by upper arm cephalic vein transposition                                                                                                                                                                                                                                                                                                                                                                                             | Procedure            | CPT-4            |
| 36819       | Arteriovenous anastomosis, open; by upper arm basilic vein transposition                                                                                                                                                                                                                                                                                                                                                                                              | Procedure            | CPT-4            |
| 36820       | Arteriovenous anastomosis, open; by forearm vein transposition                                                                                                                                                                                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 36821       | Arteriovenous anastomosis, open; direct, any site (eg, Cimino type) (separate procedure)                                                                                                                                                                                                                                                                                                                                                                              | Procedure            | CPT-4            |
| 36838       | Distal revascularization and interval ligation (DRIL), upper extremity hemodialysis access (steal syndrome)                                                                                                                                                                                                                                                                                                                                                           | Procedure            | CPT-4            |
| 36901       | Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; | Procedure            | CPT-4            |



**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 36902       | Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary | Procedure            | CPT-4            |
| 36903       | Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interp  | Procedure            | CPT-4            |
| 36904       | Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s);                                                                                                                                                                                                                                                                                             | Procedure            | CPT-4            |
| 36905       | Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s); with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty                                                                                                              | Procedure            | CPT-4            |
| 36906       | Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s); with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the stenting, and all angioplasty within the peripheral dialysis circuit                                    | Procedure            | CPT-4            |
| 36907       | Transluminal balloon angioplasty, central dialysis segment, performed through dialysis circuit, including all imaging and radiological supervision and interpretation required to perform the angioplasty (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                     | Procedure            | CPT-4            |
| 36908       | Transcatheter placement of intravascular stent(s), central dialysis segment, performed through dialysis circuit, including all imaging and radiological supervision and interpretation required to perform the stenting, and all angioplasty in the central dialysis segment (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                  | Procedure            | CPT-4            |
| 36909       | Dialysis circuit permanent vascular embolization or occlusion (including main circuit or any accessory veins), endovascular, including all imaging and radiological supervision and interpretation necessary to complete the intervention (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                     | Procedure            | CPT-4            |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                    | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 38.95       | Venous catheterization for renal dialysis                                                                                                                                                                                                                                                             | Procedure            | ICD-9-CM         |
| 39.27       | Arteriovenostomy for renal dialysis                                                                                                                                                                                                                                                                   | Procedure            | ICD-9-CM         |
| 39.42       | Revision of arteriovenous shunt for renal dialysis                                                                                                                                                                                                                                                    | Procedure            | ICD-9-CM         |
| 39.43       | Removal of arteriovenous shunt for renal dialysis                                                                                                                                                                                                                                                     | Procedure            | ICD-9-CM         |
| 39.95       | Hemodialysis                                                                                                                                                                                                                                                                                          | Procedure            | ICD-9-CM         |
| 3E1M39Z     | Irrigation of Peritoneal Cavity using Dialysate, Percutaneous Approach                                                                                                                                                                                                                                | Procedure            | ICD-10-PCS       |
| 4052F       | Hemodialysis via functioning arteriovenous (AV) fistula (ESRD)                                                                                                                                                                                                                                        | Procedure            | CPT-2            |
| 4053F       | Hemodialysis via functioning arteriovenous (AV) graft (ESRD)                                                                                                                                                                                                                                          | Procedure            | CPT-2            |
| 4054F       | Hemodialysis via catheter (ESRD)                                                                                                                                                                                                                                                                      | Procedure            | CPT-2            |
| 4055F       | Patient receiving peritoneal dialysis (ESRD)                                                                                                                                                                                                                                                          | Procedure            | CPT-2            |
| 49324       | Laparoscopy, surgical; with insertion of tunneled intraperitoneal catheter                                                                                                                                                                                                                            | Procedure            | CPT-4            |
| 49325       | Laparoscopy, surgical; with revision of previously placed intraperitoneal cannula or catheter, with removal of intraluminal obstructive material if performed                                                                                                                                         | Procedure            | CPT-4            |
| 49418       | Insertion of tunneled intraperitoneal catheter (eg, dialysis, intraperitoneal chemotherapy instillation, management of ascites), complete procedure, including imaging guidance, catheter placement, contrast injection when performed, and radiological supervision and interpretation, percutaneous | Procedure            | CPT-4            |
| 49419       | Insertion of tunneled intraperitoneal catheter, with subcutaneous port (ie, totally implantable)                                                                                                                                                                                                      | Procedure            | CPT-4            |
| 49420       | Insertion of intraperitoneal cannula or catheter for drainage or dialysis; temporary                                                                                                                                                                                                                  | Procedure            | CPT-4            |
| 49421       | Insertion of tunneled intraperitoneal catheter for dialysis, open                                                                                                                                                                                                                                     | Procedure            | CPT-4            |
| 49422       | Removal of tunneled intraperitoneal catheter                                                                                                                                                                                                                                                          | Procedure            | CPT-4            |
| 49435       | Insertion of subcutaneous extension to intraperitoneal cannula or catheter with remote chest exit site (List separately in addition to code for primary procedure)                                                                                                                                    | Procedure            | CPT-4            |
| 54.98       | Peritoneal dialysis                                                                                                                                                                                                                                                                                   | Procedure            | ICD-9-CM         |
| 5A1D70Z     | Performance of Urinary Filtration, Intermittent, Less than 6 Hours Per Day                                                                                                                                                                                                                            | Procedure            | ICD-10-PCS       |
| 5A1D80Z     | Performance of Urinary Filtration, Prolonged Intermittent, 6-18 hours Per Day                                                                                                                                                                                                                         | Procedure            | ICD-10-PCS       |
| 5A1D90Z     | Performance of Urinary Filtration, Continuous, Greater than 18 hours Per Day                                                                                                                                                                                                                          | Procedure            | ICD-10-PCS       |
| 90935       | Hemodialysis procedure with single evaluation by a physician or other qualified health care professional                                                                                                                                                                                              | Procedure            | CPT-4            |
| 90937       | Hemodialysis procedure requiring repeated evaluation(s) with or without substantial revision of dialysis prescription                                                                                                                                                                                 | Procedure            | CPT-4            |
| 90939       | Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator dilution method, hook-up; transcutaneous measurement and disconnection                                                                                                                    | Procedure            | CPT-4            |
| 90940       | Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator method                                                                                                                                                                                    | Procedure            | CPT-4            |
| 90941       | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                            | Procedure            | CPT-4            |
| 90942       | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                            | Procedure            | CPT-4            |
| 90943       | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                            | Procedure            | CPT-4            |
| 90944       | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                            | Procedure            | CPT-4            |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                             | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 90945       | Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single evaluation by a physician or other qualified health care professional                                                                       | Procedure            | CPT-4            |
| 90947       | Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring repeated evaluations by a physician or other qualified health care professional, with or without substantial revision of dialysis prescription | Procedure            | CPT-4            |
| 90963       | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents                                                | Procedure            | CPT-4            |
| 90964       | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents                                                          | Procedure            | CPT-4            |
| 90965       | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents                                                         | Procedure            | CPT-4            |
| 90966       | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 20 years of age and older                                                                                                                                                                       | Procedure            | CPT-4            |
| 90967       | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients younger than 2 years of age                                                                                                                                              | Procedure            | CPT-4            |
| 90968       | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 2-11 years of age                                                                                                                                                        | Procedure            | CPT-4            |
| 90969       | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 12-19 years of age                                                                                                                                                       | Procedure            | CPT-4            |
| 90970       | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 20 years of age and older                                                                                                                                                | Procedure            | CPT-4            |
| 90976       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90977       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90978       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90979       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90982       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90983       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90984       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90985       | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90988       | Supervision Of Hemodialysis In Hospital Or Other Facility (excluding Home Dialysis), On Monthly Basis                                                                                                                                                                                          | Procedure            | CPT-4            |
| 90989       | Dialysis training, patient, including helper where applicable, any mode, completed course                                                                                                                                                                                                      | Procedure            | CPT-4            |
| 90990       | Hemodialysis Training And/or Counseling                                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 90991       | Home Hemodialysis Care, Outpatient, For Those Services Either Provided By The Physician Primarily Responsible                                                                                                                                                                                  | Procedure            | CPT-4            |
| 90992       | Peritoneal Dialysis Training And/or Counseling                                                                                                                                                                                                                                                 | Procedure            | CPT-4            |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                       | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 90993       | Dialysis training, patient, including helper where applicable, any mode, course not completed, per training session                                      | Procedure            | CPT-4            |
| 90994       | Supervision Of Chronic Ambulatory Peritoneal Dialysis (capd), Home Or Out-patient (monthly)                                                              | Procedure            | CPT-4            |
| 90997       | Hemoperfusion (eg, with activated charcoal or resin)                                                                                                     | Procedure            | CPT-4            |
| 90999       | Unlisted dialysis procedure, inpatient or outpatient                                                                                                     | Procedure            | CPT-4            |
| 93985       | Duplex scan of arterial inflow and venous outflow for preoperative vessel assessment prior to creation of hemodialysis access; complete bilateral study  | Procedure            | CPT-4            |
| 93986       | Duplex scan of arterial inflow and venous outflow for preoperative vessel assessment prior to creation of hemodialysis access; complete unilateral study | Procedure            | CPT-4            |
| 93990       | Duplex scan of hemodialysis access (including arterial inflow, body of access and venous outflow)                                                        | Procedure            | CPT-4            |
| 99512       | Home visit for hemodialysis                                                                                                                              | Procedure            | CPT-4            |
| 99559       | Home infusion of peritoneal dialysis, per visit                                                                                                          | Procedure            | CPT-4            |
| A4653       | Peritoneal dialysis catheter anchoring device, belt, each                                                                                                | Procedure            | HCPCS            |
| A4655       | Needles and syringes for dialysis                                                                                                                        | Procedure            | HCPCS            |
| A4671       | Disposable cyclor set used with cyclor dialysis machine, each                                                                                            | Procedure            | HCPCS            |
| A4672       | Drainage extension line, sterile, for dialysis, each                                                                                                     | Procedure            | HCPCS            |
| A4673       | Extension line with easy lock connectors, used with dialysis                                                                                             | Procedure            | HCPCS            |
| A4674       | Chemicals/antiseptics solution used to clean/sterilize dialysis equipment, per 8 oz                                                                      | Procedure            | HCPCS            |
| A4680       | Activated carbon filter for hemodialysis, each                                                                                                           | Procedure            | HCPCS            |
| A4690       | Dialyzer (artificial kidneys), all types, all sizes, for hemodialysis, each                                                                              | Procedure            | HCPCS            |
| A4706       | Bicarbonate concentrate, solution, for hemodialysis, per gallon                                                                                          | Procedure            | HCPCS            |
| A4707       | Bicarbonate concentrate, powder, for hemodialysis, per packet                                                                                            | Procedure            | HCPCS            |
| A4708       | Acetate concentrate solution, for hemodialysis, per gallon                                                                                               | Procedure            | HCPCS            |
| A4709       | Acid concentrate, solution, for hemodialysis, per gallon                                                                                                 | Procedure            | HCPCS            |
| A4714       | Treated water (deionized, distilled, or reverse osmosis) for peritoneal dialysis, per gallon                                                             | Procedure            | HCPCS            |
| A4719       | "Y set" tubing for peritoneal dialysis                                                                                                                   | Procedure            | HCPCS            |
| A4720       | Dialysate solution, any concentration of dextrose, fluid volume greater than 249 cc, but less than or equal to 999 cc, for peritoneal dialysis           | Procedure            | HCPCS            |
| A4721       | Dialysate solution, any concentration of dextrose, fluid volume greater than 999 cc but less than or equal to 1999 cc, for peritoneal dialysis           | Procedure            | HCPCS            |
| A4722       | Dialysate solution, any concentration of dextrose, fluid volume greater than 1999 cc but less than or equal to 2999 cc, for peritoneal dialysis          | Procedure            | HCPCS            |
| A4723       | Dialysate solution, any concentration of dextrose, fluid volume greater than 2999 cc but less than or equal to 3999 cc, for peritoneal dialysis          | Procedure            | HCPCS            |
| A4724       | Dialysate solution, any concentration of dextrose, fluid volume greater than 3999 cc but less than or equal to 4999 cc, for peritoneal dialysis          | Procedure            | HCPCS            |
| A4725       | Dialysate solution, any concentration of dextrose, fluid volume greater than 4999 cc but less than or equal to 5999 cc, for peritoneal dialysis          | Procedure            | HCPCS            |
| A4726       | Dialysate solution, any concentration of dextrose, fluid volume greater than 5999 cc, for peritoneal dialysis                                            | Procedure            | HCPCS            |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                          | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| A4728       | Dialysate solution, nondextrose containing, 500 ml                                                                          | Procedure            | HCPCS            |
| A4730       | Fistula cannulation set for hemodialysis, each                                                                              | Procedure            | HCPCS            |
| A4735       | Local/topical anesthetics for dialysis only                                                                                 | Procedure            | HCPCS            |
| A4736       | Topical anesthetic, for dialysis, per g                                                                                     | Procedure            | HCPCS            |
| A4737       | Injectable anesthetic, for dialysis, per 10 ml                                                                              | Procedure            | HCPCS            |
| A4740       | Shunt accessory, for hemodialysis, any type, each                                                                           | Procedure            | HCPCS            |
| A4750       | Blood tubing, arterial or venous, for hemodialysis, each                                                                    | Procedure            | HCPCS            |
| A4755       | Blood tubing, arterial and venous combined, for hemodialysis, each                                                          | Procedure            | HCPCS            |
| A4760       | Dialysate solution test kit, for peritoneal dialysis, any type, each                                                        | Procedure            | HCPCS            |
| A4765       | Dialysate concentrate, powder, additive for peritoneal dialysis, per packet                                                 | Procedure            | HCPCS            |
| A4766       | Dialysate concentrate, solution, additive for peritoneal dialysis, per 10 ml                                                | Procedure            | HCPCS            |
| A4770       | Blood collection tube, vacuum, for dialysis, per 50                                                                         | Procedure            | HCPCS            |
| A4771       | Serum clotting time tube, for dialysis, per 50                                                                              | Procedure            | HCPCS            |
| A4772       | Blood glucose test strips, for dialysis, per 50                                                                             | Procedure            | HCPCS            |
| A4773       | Occult blood test strips, for dialysis, per 50                                                                              | Procedure            | HCPCS            |
| A4774       | Ammonia test strips, for dialysis, per 50                                                                                   | Procedure            | HCPCS            |
| A4780       | Sterilizing agent for dialysis equipment, per gallon                                                                        | Procedure            | HCPCS            |
| A4790       | Cleansing agents for equipment for dialysis only                                                                            | Procedure            | HCPCS            |
| A4800       | Heparin for dialysis and antidote, any strength, porcine or beef, up to 1000 units, 10-30 ml (for parenteral use see b4216) | Procedure            | HCPCS            |
| A4801       | Heparin, any type, for hemodialysis, per 1000 units                                                                         | Procedure            | HCPCS            |
| A4802       | Protamine sulfate, for hemodialysis, per 50 mg                                                                              | Procedure            | HCPCS            |
| A4820       | Hemodialysis kit supplies                                                                                                   | Procedure            | HCPCS            |
| A4850       | Hemostats with rubber tips for dialysis                                                                                     | Procedure            | HCPCS            |
| A4860       | Disposable catheter tips for peritoneal dialysis, per 10                                                                    | Procedure            | HCPCS            |
| A4870       | Plumbing and/or electrical work for home hemodialysis equipment                                                             | Procedure            | HCPCS            |
| A4880       | Storage tanks utilized in connection with water purification system, replacement tanks for dialysis                         | Procedure            | HCPCS            |
| A4890       | Contracts, repair and maintenance, for hemodialysis equipment                                                               | Procedure            | HCPCS            |
| A4900       | Continuous ambulatory peritoneal dialysis (capd) supply kit                                                                 | Procedure            | HCPCS            |
| A4901       | Continuous cycling peritoneal dialysis (ccpd) supply kit                                                                    | Procedure            | HCPCS            |
| A4905       | Intermittent peritoneal dialysis (ipd) supply kit                                                                           | Procedure            | HCPCS            |
| A4910       | Non-medical supplies for dialysis, (i.e., scale, scissors, stopwatch, etc.)                                                 | Procedure            | HCPCS            |
| A4911       | Drain bag/bottle, for dialysis, each                                                                                        | Procedure            | HCPCS            |
| A4913       | Miscellaneous dialysis supplies, not otherwise specified                                                                    | Procedure            | HCPCS            |
| A4918       | Venous pressure clamp, for hemodialysis, each                                                                               | Procedure            | HCPCS            |
| A4929       | Tourniquet for dialysis, each                                                                                               | Procedure            | HCPCS            |
| B50W        | Plain Radiography / Dialysis Shunt/Fistula                                                                                  | Procedure            | ICD-10-PCS       |
| B50W0ZZ     | Plain Radiography of Dialysis Shunt/Fistula using High Osmolar Contrast                                                     | Procedure            | ICD-10-PCS       |
| B50W1ZZ     | Plain Radiography of Dialysis Shunt/Fistula using Low Osmolar Contrast                                                      | Procedure            | ICD-10-PCS       |
| B50WYZZ     | Plain Radiography of Dialysis Shunt/Fistula using Other Contrast                                                            | Procedure            | ICD-10-PCS       |
| B51W        | Fluoroscopy / Dialysis Shunt/Fistula                                                                                        | Procedure            | ICD-10-PCS       |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| Code    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Code      |            |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Category  | Code Type  |
| B51W0ZA | Fluoroscopy of Dialysis Shunt/Fistula using High Osmolar Contrast, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure | ICD-10-PCS |
| B51W0ZZ | Fluoroscopy of Dialysis Shunt/Fistula using High Osmolar Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Procedure | ICD-10-PCS |
| B51W1ZA | Fluoroscopy of Dialysis Shunt/Fistula using Low Osmolar Contrast, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | ICD-10-PCS |
| B51W1ZZ | Fluoroscopy of Dialysis Shunt/Fistula using Low Osmolar Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Procedure | ICD-10-PCS |
| B51WYZA | Fluoroscopy of Dialysis Shunt/Fistula using Other Contrast, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | ICD-10-PCS |
| B51WYZZ | Fluoroscopy of Dialysis Shunt/Fistula using Other Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | ICD-10-PCS |
| B51WZZA | Fluoroscopy of Dialysis Shunt/Fistula, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure | ICD-10-PCS |
| B51WZZZ | Fluoroscopy of Dialysis Shunt/Fistula                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure | ICD-10-PCS |
| C1037   | Catheter, vaxcel chronic dialysis catheter, medcomp bio flex tesio catheter, medcomp silicone tesio catheter, medcomp hemo-cath long term silicone catheter, bard niagara dual lumen catheter, bard opti-flow dual lumen catheter, medcomp ash split catheter                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS      |
| C1152   | Access system, dialysis, lifesite access system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS      |
| C1750   | Catheter, hemodialysis/peritoneal, long-term                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Procedure | HCPCS      |
| C1751   | Catheter, infusion, inserted peripherally, centrally or midline (other than hemodialysis)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Procedure | HCPCS      |
| C1752   | Catheter, hemodialysis/peritoneal, short-term                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS      |
| C1881   | Dialysis access system (implantable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | HCPCS      |
| C7513   | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with transluminal balloon angioplasty of central dialysis segment, performed through dialysis circuit, including all required imaging, radiological supervision and interpretation, image documentation and report                | Procedure | HCPCS      |
| C7514   | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with all angioplasty in the central dialysis segment, and transcatheter placement of intravascular stent(s), central dialysis segment, performed through dialysis circuit, including all required imaging, radiological supervisi | Procedure | HCPCS      |
| C7515   | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with dialysis circuit permanent endovascular embolization or occlusion of main circuit or any accessory veins, including all required imaging, radiological supervision and interpretation, image documentation and report        | Procedure | HCPCS      |



**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| C7530       | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty and all angioplasty in the central dialysis segment | Procedure            | HCPCS            |
| E1500       | Centrifuge, for dialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| E1520       | Heparin infusion pump for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure            | HCPCS            |
| E1530       | Air bubble detector for hemodialysis, each, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Procedure            | HCPCS            |
| E1540       | Pressure alarm for hemodialysis, each, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Procedure            | HCPCS            |
| E1550       | Bath conductivity meter for hemodialysis, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure            | HCPCS            |
| E1560       | Blood leak detector for hemodialysis, each, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Procedure            | HCPCS            |
| E1575       | Transducer protectors/fluid barriers, for hemodialysis, any size, per 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| E1580       | Unipuncture control system for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure            | HCPCS            |
| E1590       | Hemodialysis machine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Procedure            | HCPCS            |
| E1592       | Automatic intermittent peritoneal dialysis system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Procedure            | HCPCS            |
| E1594       | Cycler dialysis machine for peritoneal dialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Procedure            | HCPCS            |
| E1600       | Delivery and/or installation charges for hemodialysis equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Procedure            | HCPCS            |
| E1610       | Reverse osmosis water purification system, for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure            | HCPCS            |
| E1615       | Deionizer water purification system, for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure            | HCPCS            |
| E1620       | Blood pump for hemodialysis, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| E1625       | Water softening system, for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| E1629       | Tablo hemodialysis system for the billable dialysis service                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure            | HCPCS            |
| E1630       | Reciprocating peritoneal dialysis system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| E1634       | Peritoneal dialysis clamps, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure            | HCPCS            |
| E1636       | Sorbent cartridges, for hemodialysis, per 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure            | HCPCS            |
| E1638       | Heating pad, for peritoneal dialysis, any size, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Procedure            | HCPCS            |
| E1640       | Replacement components for hemodialysis and/or peritoneal dialysis machines that are owned or being purchased by the patient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure            | HCPCS            |
| E1699       | Dialysis equipment, not otherwise specified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure            | HCPCS            |
| G0049       | With maintenance hemodialysis (in-center and home HD) for the complete reporting month                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure            | HCPCS            |
| G0052       | Patients on peritoneal dialysis for any portion of the reporting month                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure            | HCPCS            |
| G0257       | Unscheduled or emergency dialysis treatment for an ESRD patient in a hospital outpatient department that is not certified as an ESRD facility                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Procedure            | HCPCS            |
| G0324       | ESRD related services for home dialysis (less than full month), per day; for patients under 2 years of age                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Procedure            | HCPCS            |
| G0325       | ESRD related services for home dialysis (less than full month), per day; for patients between 2 and 11 years of age                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Procedure            | HCPCS            |
| G0326       | ESRD related services for home dialysis (less than full month), per day; for patients between twelve and nineteen years of age                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure            | HCPCS            |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| G0365       | Vessel mapping of vessels for hemodialysis access (services for preoperative vessel mapping prior to creation of hemodialysis access using an autogenous hemodialysis conduit, including arterial inflow and venous outflow)                                                                                                                                                                                      | Procedure            | HCPCS            |
| G0392       | Transluminal balloon angioplasty, percutaneous; for maintenance of hemodialysis access, arteriovenous fistula or graft; arterial                                                                                                                                                                                                                                                                                  | Procedure            | HCPCS            |
| G0393       | Transluminal balloon angioplasty, percutaneous; for maintenance of hemodialysis access, arteriovenous fistula or graft; venous                                                                                                                                                                                                                                                                                    | Procedure            | HCPCS            |
| G0491       | Dialysis procedure at a Medicare certified ESRD facility for acute kidney injury without ESRD                                                                                                                                                                                                                                                                                                                     | Procedure            | HCPCS            |
| G0492       | Dialysis procedure with single evaluation by a physician or other qualified health care professional for acute kidney injury without ESRD                                                                                                                                                                                                                                                                         | Procedure            | HCPCS            |
| G1026       | The number of adult patient-months in the denominator who were on maintenance hemodialysis using a catheter continuously for 3 months or longer under the care of the same practitioner or group partner as of the last hemodialysis session of the reporting month                                                                                                                                               | Procedure            | HCPCS            |
| G1027       | The number of adult patient-months in the denominator who were on maintenance hemodialysis under the care of the same practitioner or group partner as of the last hemodialysis session of the reporting month using a catheter continuously for less than 3 months                                                                                                                                               | Procedure            | HCPCS            |
| G8075       | ESRD patient with documented dialysis dose of URR greater than or equal to 65% (or Kt/V greater than or equal to 1.2)                                                                                                                                                                                                                                                                                             | Procedure            | HCPCS            |
| G8076       | ESRD patient with documented dialysis dose of URR less than 65% (or Kt/V less than 1.2)                                                                                                                                                                                                                                                                                                                           | Procedure            | HCPCS            |
| G8081       | ESRD patient requiring hemodialysis vascular access documented to have received autogenous AV fistula                                                                                                                                                                                                                                                                                                             | Procedure            | HCPCS            |
| G8082       | ESRD patient requiring hemodialysis documented to have received vascular access other than autogenous AV fistula                                                                                                                                                                                                                                                                                                  | Procedure            | HCPCS            |
| G8085       | ESRD patient requiring hemodialysis vascular access was not an eligible candidate for autogenous AV fistula                                                                                                                                                                                                                                                                                                       | Procedure            | HCPCS            |
| G8575       | Developed postoperative renal failure or required dialysis                                                                                                                                                                                                                                                                                                                                                        | Procedure            | HCPCS            |
| G8576       | No postoperative renal failure/dialysis not required                                                                                                                                                                                                                                                                                                                                                              | Procedure            | HCPCS            |
| G8714       | Hemodialysis treatment performed exactly 3 times per week > 90 days                                                                                                                                                                                                                                                                                                                                               | Procedure            | HCPCS            |
| G8715       | Hemodialysis treatment performed less than 3 times per week or greater than 3 times per week                                                                                                                                                                                                                                                                                                                      | Procedure            | HCPCS            |
| G8727       | Patient receiving hemodialysis, peritoneal dialysis or kidney transplantation                                                                                                                                                                                                                                                                                                                                     | Procedure            | HCPCS            |
| G8956       | Patient receiving maintenance hemodialysis in an outpatient dialysis facility                                                                                                                                                                                                                                                                                                                                     | Procedure            | HCPCS            |
| G8957       | Patient not receiving maintenance hemodialysis in an outpatient dialysis facility                                                                                                                                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| G9239       | Documentation of reasons for patient initiating maintenance hemodialysis with a catheter as the mode of vascular access (e.g., patient has a maturing arteriovenous fistula (AVF)/arteriovenous graft (AVG), time limited trial of hemodialysis, other medical reasons, patient declined AVF/AVG, other patient reasons, patient followed by reporting nephrologist for fewer than 90 days, other system reasons) | Procedure            | HCPCS            |



**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                   | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| G9240       | Patient whose mode of vascular access is a catheter at the time maintenance hemodialysis is initiated                                                                                                                                                                | Procedure            | HCPCS            |
| G9241       | Patient whose mode of vascular access is not a catheter at the time maintenance hemodialysis is initiated                                                                                                                                                            | Procedure            | HCPCS            |
| G9264       | Documentation of patient receiving maintenance hemodialysis for greater than or equal to 90 days with a catheter for documented reasons (e.g., other medical reasons, patient declined arteriovenous fistula (AVF)/arteriovenous graft (AVG), other patient reasons) | Procedure            | HCPCS            |
| G9265       | Patient receiving maintenance hemodialysis for greater than or equal to 90 days with a catheter as the mode of vascular access                                                                                                                                       | Procedure            | HCPCS            |
| G9266       | Patient receiving maintenance hemodialysis for greater than or equal to 90 days without a catheter as the mode of vascular access                                                                                                                                    | Procedure            | HCPCS            |
| G9523       | Patient discontinued from hemodialysis or peritoneal dialysis                                                                                                                                                                                                        | Procedure            | HCPCS            |
| G9747       | Patient is undergoing palliative dialysis with a catheter                                                                                                                                                                                                            | Procedure            | HCPCS            |
| G9749       | Patient is undergoing palliative dialysis with a catheter                                                                                                                                                                                                            | Procedure            | HCPCS            |
| J0604       | Cinacalcet, oral, 1 mg, (for ESRD on dialysis)                                                                                                                                                                                                                       | Procedure            | HCPCS            |
| J0879       | Injection, difelikefalin, 0.1 mcg, (for ESRD on dialysis)                                                                                                                                                                                                            | Procedure            | HCPCS            |
| J0882       | Injection, darbepoetin alfa, 1 mcg (for ESRD on dialysis)                                                                                                                                                                                                            | Procedure            | HCPCS            |
| J0884       | Injection, argatroban, 1 mg (for ESRD on dialysis)                                                                                                                                                                                                                   | Procedure            | HCPCS            |
| J0886       | Injection, epoetin alfa, 1000 units (for ESRD on dialysis)                                                                                                                                                                                                           | Procedure            | HCPCS            |
| J0887       | Injection, epoetin beta, 1 mcg, (for ESRD on dialysis)                                                                                                                                                                                                               | Procedure            | HCPCS            |
| J0889       | Daprodustat, oral, 1 mg, (for ESRD on dialysis)                                                                                                                                                                                                                      | Procedure            | HCPCS            |
| J0890       | Injection, peginesatide, 0.1 mg (for ESRD on dialysis)                                                                                                                                                                                                               | Procedure            | HCPCS            |
| J0892       | Injection, argatroban (Accord), not therapeutically equivalent to J0884, 1 mg (for ESRD on dialysis)                                                                                                                                                                 | Procedure            | HCPCS            |
| J0899       | Injection, argatroban (AuroMedics), not therapeutically equivalent to J0884, 1 mg (for ESRD on dialysis)                                                                                                                                                             | Procedure            | HCPCS            |
| J3591       | Unclassified drug or biological used for ESRD on dialysis                                                                                                                                                                                                            | Procedure            | HCPCS            |
| K0610       | Peritoneal dialysis clamp, each                                                                                                                                                                                                                                      | Procedure            | HCPCS            |
| K0611       | Disposable cyclor set used with cyclor dialysis machine, each                                                                                                                                                                                                        | Procedure            | HCPCS            |
| K0612       | Drainage extension line, sterile, for dialysis, each                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| K0613       | Extension line with easy lock connectors, used with dialysis                                                                                                                                                                                                         | Procedure            | HCPCS            |
| K0614       | Chemicals/antiseptic solution used to clean/sterilize dialysis equipment, per 8 oz                                                                                                                                                                                   | Procedure            | HCPCS            |
| M1262       | Patients who had a transplant prior to initiation of dialysis                                                                                                                                                                                                        | Procedure            | HCPCS            |
| M1263       | Patients in hospice on their initiation of dialysis date or during the month of evaluation                                                                                                                                                                           | Procedure            | HCPCS            |
| M1264       | Patients age 75 or older on their initiation of dialysis date                                                                                                                                                                                                        | Procedure            | HCPCS            |
| M1269       | Receiving ESRD MCP dialysis services by the provider on the last day of the reporting month                                                                                                                                                                          | Procedure            | HCPCS            |
| M1273       | Patients who were admitted to a skilled nursing facility (SNF) within 1 year of dialysis initiation according to the CMS-2728 Form                                                                                                                                   | Procedure            | HCPCS            |
| Q0139       | Injection, ferumoxytol, for treatment of iron deficiency anemia, 1 mg (for ESRD on dialysis)                                                                                                                                                                         | Procedure            | HCPCS            |
| Q2047       | Injection, peginesatide, 0.1 mg (for ESRD on dialysis)                                                                                                                                                                                                               | Procedure            | HCPCS            |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                           | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| Q3023       | Injection, hepatitis B vaccine, immunosuppressed patients (including renal dialysis patients), per dose                                                                                                      | Procedure            | HCPCS            |
| Q4054       | Injection, darbepoetin alfa, 1 mcg (for ESRD on dialysis)                                                                                                                                                    | Procedure            | HCPCS            |
| Q4055       | Injection, epoetin alfa, 1000 units (for ESRD on dialysis)                                                                                                                                                   | Procedure            | HCPCS            |
| Q4081       | Injection, epoetin alfa, 100 units (for ESRD on dialysis)                                                                                                                                                    | Procedure            | HCPCS            |
| Q5105       | Injection, epoetin alfa-epbx, biosimilar, (Retacrit) (for ESRD on dialysis), 100 units                                                                                                                       | Procedure            | HCPCS            |
| Q9972       | Injection, epoetin beta, 1 microgram, (for ESRD on dialysis)                                                                                                                                                 | Procedure            | HCPCS            |
| S0194       | Dialysis/stress vitamin supplement, oral, 100 capsules                                                                                                                                                       | Procedure            | HCPCS            |
| S9335       | Home therapy, hemodialysis; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing services coded separately), per diem     | Procedure            | HCPCS            |
| S9339       | Home therapy; peritoneal dialysis, administrative services, professional pharmacy services, care coordination and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem | Procedure            | HCPCS            |
| 458.21      | Hypotension of hemodialysis                                                                                                                                                                                  | Diagnosis            | ICD-9-CM         |
| 792.5       | Cloudy (hemodialysis) (peritoneal) dialysis effluent                                                                                                                                                         | Diagnosis            | ICD-9-CM         |
| 996.56      | Mechanical complications due to peritoneal dialysis catheter                                                                                                                                                 | Diagnosis            | ICD-9-CM         |
| 996.68      | Infection and inflammatory reaction due to peritoneal dialysis catheter                                                                                                                                      | Diagnosis            | ICD-9-CM         |
| 996.73      | Other complications due to renal dialysis device, implant, and graft                                                                                                                                         | Diagnosis            | ICD-9-CM         |
| E870.2      | Accidental cut, puncture, perforation, or hemorrhage during kidney dialysis or other perfusion                                                                                                               | Diagnosis            | ICD-9-CM         |
| E871.2      | Foreign object left in body during kidney dialysis or other perfusion                                                                                                                                        | Diagnosis            | ICD-9-CM         |
| E872.2      | Failure of sterile precautions during kidney dialysis and other perfusion                                                                                                                                    | Diagnosis            | ICD-9-CM         |
| E874.2      | Mechanical failure of instrument or apparatus during kidney dialysis and other perfusion                                                                                                                     | Diagnosis            | ICD-9-CM         |
| E879.1      | Kidney dialysis as the cause of abnormal reaction of patient, or of later complication, without mention of misadventure at time of procedure                                                                 | Diagnosis            | ICD-9-CM         |
| I95.3       | Hypotension of hemodialysis                                                                                                                                                                                  | Diagnosis            | ICD-10-CM        |
| R88.0       | Cloudy (hemodialysis) (peritoneal) dialysis effluent                                                                                                                                                         | Diagnosis            | ICD-10-CM        |
| T85.611A    | Breakdown (mechanical) of intraperitoneal dialysis catheter, initial encounter                                                                                                                               | Diagnosis            | ICD-10-CM        |
| T85.621A    | Displacement of intraperitoneal dialysis catheter, initial encounter                                                                                                                                         | Diagnosis            | ICD-10-CM        |
| T85.631A    | Leakage of intraperitoneal dialysis catheter, initial encounter                                                                                                                                              | Diagnosis            | ICD-10-CM        |
| T85.691A    | Other mechanical complication of intraperitoneal dialysis catheter, initial encounter                                                                                                                        | Diagnosis            | ICD-10-CM        |
| T85.71XA    | Infection and inflammatory reaction due to peritoneal dialysis catheter, initial encounter                                                                                                                   | Diagnosis            | ICD-10-CM        |
| V45.1       | Renal dialysis status                                                                                                                                                                                        | Diagnosis            | ICD-9-CM         |
| V45.11      | Renal dialysis status                                                                                                                                                                                        | Diagnosis            | ICD-9-CM         |
| V56         | Encounter for dialysis and dialysis catheter care                                                                                                                                                            | Diagnosis            | ICD-9-CM         |
| V56.0       | Encounter for extracorporeal dialysis                                                                                                                                                                        | Diagnosis            | ICD-9-CM         |
| V56.1       | Fitting and adjustment of extracorporeal dialysis catheter                                                                                                                                                   | Diagnosis            | ICD-9-CM         |
| V56.2       | Fitting and adjustment of peritoneal dialysis catheter                                                                                                                                                       | Diagnosis            | ICD-9-CM         |
| V56.3       | Encounter for adequacy testing for dialysis                                                                                                                                                                  | Diagnosis            | ICD-9-CM         |
| V56.31      | Encounter for adequacy testing for hemodialysis                                                                                                                                                              | Diagnosis            | ICD-9-CM         |
| V56.32      | Encounter for adequacy testing for peritoneal dialysis                                                                                                                                                       | Diagnosis            | ICD-9-CM         |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b>                                                                            | <b>Description</b>                                                                                                                                       | <b>Code Category</b> | <b>Code Type</b> |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| V56.8                                                                                  | Encounter other dialysis                                                                                                                                 | Diagnosis            | ICD-9-CM         |
| Y62.2                                                                                  | Failure of sterile precautions during kidney dialysis and other perfusion                                                                                | Diagnosis            | ICD-10-CM        |
| Y84.1                                                                                  | Kidney dialysis as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure | Diagnosis            | ICD-10-CM        |
| Z49.0                                                                                  | Preparatory care for renal dialysis                                                                                                                      | Diagnosis            | ICD-10-CM        |
| Z49.01                                                                                 | Encounter for fitting and adjustment of extracorporeal dialysis catheter                                                                                 | Diagnosis            | ICD-10-CM        |
| Z49.02                                                                                 | Encounter for fitting and adjustment of peritoneal dialysis catheter                                                                                     | Diagnosis            | ICD-10-CM        |
| Z49.3                                                                                  | Encounter for adequacy testing for dialysis                                                                                                              | Diagnosis            | ICD-10-CM        |
| Z49.31                                                                                 | Encounter for adequacy testing for hemodialysis                                                                                                          | Diagnosis            | ICD-10-CM        |
| Z49.32                                                                                 | Encounter for adequacy testing for peritoneal dialysis                                                                                                   | Diagnosis            | ICD-10-CM        |
| Z91.15                                                                                 | Patient's noncompliance with renal dialysis                                                                                                              | Diagnosis            | ICD-10-CM        |
| Z99.2                                                                                  | Dependence on renal dialysis                                                                                                                             | Diagnosis            | ICD-10-CM        |
| <b>Prior Renal Cell Carcinoma</b>                                                      |                                                                                                                                                          |                      |                  |
| <b>≥2 Diagnosis Codes for Kidney Neoplasm</b>                                          |                                                                                                                                                          |                      |                  |
| 189                                                                                    | Malignant neoplasm of kidney and other and unspecified urinary organs                                                                                    | Diagnosis            | ICD-9-CM         |
| 189.0                                                                                  | Malignant neoplasm of kidney, except pelvis                                                                                                              | Diagnosis            | ICD-9-CM         |
| 198.0                                                                                  | Secondary malignant neoplasm of kidney                                                                                                                   | Diagnosis            | ICD-9-CM         |
| C64                                                                                    | Malignant neoplasm of kidney, except renal pelvis                                                                                                        | Diagnosis            | ICD-10-CM        |
| C64.1                                                                                  | Malignant neoplasm of right kidney, except renal pelvis                                                                                                  | Diagnosis            | ICD-10-CM        |
| C64.2                                                                                  | Malignant neoplasm of left kidney, except renal pelvis                                                                                                   | Diagnosis            | ICD-10-CM        |
| C64.9                                                                                  | Malignant neoplasm of unspecified kidney, except renal pelvis                                                                                            | Diagnosis            | ICD-10-CM        |
| C79.0                                                                                  | Secondary malignant neoplasm of kidney and renal pelvis                                                                                                  | Diagnosis            | ICD-10-CM        |
| C79.00                                                                                 | Secondary malignant neoplasm of unspecified kidney and renal pelvis                                                                                      | Diagnosis            | ICD-10-CM        |
| C79.01                                                                                 | Secondary malignant neoplasm of right kidney and renal pelvis                                                                                            | Diagnosis            | ICD-10-CM        |
| C79.02                                                                                 | Secondary malignant neoplasm of left kidney and renal pelvis                                                                                             | Diagnosis            | ICD-10-CM        |
| <b>≥1 Diagnosis Code for History of Kidney Cancer or of Acquired Absence of Kidney</b> |                                                                                                                                                          |                      |                  |
| V10.52                                                                                 | Personal history of malignant neoplasm of kidney                                                                                                         | Diagnosis            | ICD-9-CM         |
| V45.73                                                                                 | Acquired absence of kidney                                                                                                                               | Diagnosis            | ICD-9-CM         |
| Z85.52                                                                                 | Personal history of malignant neoplasm of kidney                                                                                                         | Diagnosis            | ICD-10-CM        |
| Z85.520                                                                                | Personal history of malignant carcinoid tumor of kidney                                                                                                  | Diagnosis            | ICD-10-CM        |
| Z85.528                                                                                | Personal history of other malignant neoplasm of kidney                                                                                                   | Diagnosis            | ICD-10-CM        |
| Z90.5                                                                                  | Acquired absence of kidney                                                                                                                               | Diagnosis            | ICD-10-CM        |
| <b>Type 1 Diabetes</b>                                                                 |                                                                                                                                                          |                      |                  |
| 250.01                                                                                 | Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled                                                    | Diagnosis            | ICD-9-CM         |
| 250.03                                                                                 | Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled                                                                  | Diagnosis            | ICD-9-CM         |
| 250.11                                                                                 | Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled                                                                           | Diagnosis            | ICD-9-CM         |
| 250.13                                                                                 | Diabetes with ketoacidosis, type I [juvenile type], uncontrolled                                                                                         | Diagnosis            | ICD-9-CM         |
| 250.21                                                                                 | Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled                                                                        | Diagnosis            | ICD-9-CM         |
| 250.23                                                                                 | Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled                                                                                      | Diagnosis            | ICD-9-CM         |
| 250.31                                                                                 | Diabetes with other coma, type I [juvenile type], not stated as uncontrolled                                                                             | Diagnosis            | ICD-9-CM         |
| 250.33                                                                                 | Diabetes with other coma, type I [juvenile type], uncontrolled                                                                                           | Diagnosis            | ICD-9-CM         |
| 250.41                                                                                 | Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled                                                                   | Diagnosis            | ICD-9-CM         |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                           | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 250.43      | Diabetes with renal manifestations, type I [juvenile type], uncontrolled                                     | Diagnosis            | ICD-9-CM         |
| 250.51      | Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled                  | Diagnosis            | ICD-9-CM         |
| 250.53      | Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled                                | Diagnosis            | ICD-9-CM         |
| 250.61      | Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled                | Diagnosis            | ICD-9-CM         |
| 250.63      | Diabetes with neurological manifestations, type I [juvenile type], uncontrolled                              | Diagnosis            | ICD-9-CM         |
| 250.71      | Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled           | Diagnosis            | ICD-9-CM         |
| 250.73      | Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled                         | Diagnosis            | ICD-9-CM         |
| 250.81      | Diabetes with other specified manifestations, type I [juvenile type], not stated as uncontrolled             | Diagnosis            | ICD-9-CM         |
| 250.83      | Diabetes with other specified manifestations, type I [juvenile type], uncontrolled                           | Diagnosis            | ICD-9-CM         |
| 250.91      | Diabetes with unspecified complication, type I [juvenile type], not stated as uncontrolled                   | Diagnosis            | ICD-9-CM         |
| 250.93      | Diabetes with unspecified complication, type I [juvenile type], uncontrolled                                 | Diagnosis            | ICD-9-CM         |
| E10         | Type 1 diabetes mellitus                                                                                     | Diagnosis            | ICD-10-CM        |
| E10.1       | Type 1 diabetes mellitus with ketoacidosis                                                                   | Diagnosis            | ICD-10-CM        |
| E10.10      | Type 1 diabetes mellitus with ketoacidosis without coma                                                      | Diagnosis            | ICD-10-CM        |
| E10.11      | Type 1 diabetes mellitus with ketoacidosis with coma                                                         | Diagnosis            | ICD-10-CM        |
| E10.2       | Type 1 diabetes mellitus with kidney complications                                                           | Diagnosis            | ICD-10-CM        |
| E10.21      | Type 1 diabetes mellitus with diabetic nephropathy                                                           | Diagnosis            | ICD-10-CM        |
| E10.22      | Type 1 diabetes mellitus with diabetic chronic kidney disease                                                | Diagnosis            | ICD-10-CM        |
| E10.29      | Type 1 diabetes mellitus with other diabetic kidney complication                                             | Diagnosis            | ICD-10-CM        |
| E10.3       | Type 1 diabetes mellitus with ophthalmic complications                                                       | Diagnosis            | ICD-10-CM        |
| E10.31      | Type 1 diabetes mellitus with unspecified diabetic retinopathy                                               | Diagnosis            | ICD-10-CM        |
| E10.311     | Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema                            | Diagnosis            | ICD-10-CM        |
| E10.319     | Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema                         | Diagnosis            | ICD-10-CM        |
| E10.32      | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy                                     | Diagnosis            | ICD-10-CM        |
| E10.321     | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema                  | Diagnosis            | ICD-10-CM        |
| E10.3211    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E10.3212    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E10.3213    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E10.3219    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E10.329     | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema               | Diagnosis            | ICD-10-CM        |
| E10.3291    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye    | Diagnosis            | ICD-10-CM        |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E10.3292    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye            | Diagnosis            | ICD-10-CM        |
| E10.3293    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral           | Diagnosis            | ICD-10-CM        |
| E10.3299    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye     | Diagnosis            | ICD-10-CM        |
| E10.33      | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy                                        | Diagnosis            | ICD-10-CM        |
| E10.331     | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema                     | Diagnosis            | ICD-10-CM        |
| E10.3311    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E10.3312    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E10.3313    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E10.3319    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E10.339     | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema                  | Diagnosis            | ICD-10-CM        |
| E10.3391    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E10.3392    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E10.3393    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E10.3399    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E10.34      | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy                                          | Diagnosis            | ICD-10-CM        |
| E10.341     | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema                       | Diagnosis            | ICD-10-CM        |
| E10.3411    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye            | Diagnosis            | ICD-10-CM        |
| E10.3412    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye             | Diagnosis            | ICD-10-CM        |
| E10.3413    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral            | Diagnosis            | ICD-10-CM        |
| E10.3419    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye      | Diagnosis            | ICD-10-CM        |
| E10.349     | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema                    | Diagnosis            | ICD-10-CM        |
| E10.3491    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye         | Diagnosis            | ICD-10-CM        |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                          | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E10.3492    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye                                                  | Diagnosis            | ICD-10-CM        |
| E10.3493    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral                                                 | Diagnosis            | ICD-10-CM        |
| E10.3499    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye                                           | Diagnosis            | ICD-10-CM        |
| E10.35      | Type 1 diabetes mellitus with proliferative diabetic retinopathy                                                                                            | Diagnosis            | ICD-10-CM        |
| E10.351     | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema                                                                         | Diagnosis            | ICD-10-CM        |
| E10.3511    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye                                                              | Diagnosis            | ICD-10-CM        |
| E10.3512    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye                                                               | Diagnosis            | ICD-10-CM        |
| E10.3513    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral                                                              | Diagnosis            | ICD-10-CM        |
| E10.3519    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye                                                        | Diagnosis            | ICD-10-CM        |
| E10.352     | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula                                      | Diagnosis            | ICD-10-CM        |
| E10.3521    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye                           | Diagnosis            | ICD-10-CM        |
| E10.3522    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye                            | Diagnosis            | ICD-10-CM        |
| E10.3523    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral                           | Diagnosis            | ICD-10-CM        |
| E10.3529    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye                     | Diagnosis            | ICD-10-CM        |
| E10.353     | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula                                  | Diagnosis            | ICD-10-CM        |
| E10.3531    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye                       | Diagnosis            | ICD-10-CM        |
| E10.3532    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye                        | Diagnosis            | ICD-10-CM        |
| E10.3533    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral                       | Diagnosis            | ICD-10-CM        |
| E10.3539    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye                 | Diagnosis            | ICD-10-CM        |
| E10.354     | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment            | Diagnosis            | ICD-10-CM        |
| E10.3541    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye | Diagnosis            | ICD-10-CM        |
| E10.3542    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye  | Diagnosis            | ICD-10-CM        |



**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E10.3543    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral       | Diagnosis            | ICD-10-CM        |
| E10.3549    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye | Diagnosis            | ICD-10-CM        |
| E10.355     | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy                                                                                           | Diagnosis            | ICD-10-CM        |
| E10.3551    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye                                                                                | Diagnosis            | ICD-10-CM        |
| E10.3552    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye                                                                                 | Diagnosis            | ICD-10-CM        |
| E10.3553    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral                                                                                | Diagnosis            | ICD-10-CM        |
| E10.3559    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye                                                                          | Diagnosis            | ICD-10-CM        |
| E10.359     | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema                                                                            | Diagnosis            | ICD-10-CM        |
| E10.3591    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye                                                                 | Diagnosis            | ICD-10-CM        |
| E10.3592    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye                                                                  | Diagnosis            | ICD-10-CM        |
| E10.3593    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral                                                                 | Diagnosis            | ICD-10-CM        |
| E10.3599    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye                                                           | Diagnosis            | ICD-10-CM        |
| E10.36      | Type 1 diabetes mellitus with diabetic cataract                                                                                                                   | Diagnosis            | ICD-10-CM        |
| E10.37      | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment                                                                                | Diagnosis            | ICD-10-CM        |
| E10.37X1    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye                                                                     | Diagnosis            | ICD-10-CM        |
| E10.37X2    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye                                                                      | Diagnosis            | ICD-10-CM        |
| E10.37X3    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral                                                                     | Diagnosis            | ICD-10-CM        |
| E10.37X9    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye                                                               | Diagnosis            | ICD-10-CM        |
| E10.39      | Type 1 diabetes mellitus with other diabetic ophthalmic complication                                                                                              | Diagnosis            | ICD-10-CM        |
| E10.4       | Type 1 diabetes mellitus with neurological complications                                                                                                          | Diagnosis            | ICD-10-CM        |
| E10.40      | Type 1 diabetes mellitus with diabetic neuropathy, unspecified                                                                                                    | Diagnosis            | ICD-10-CM        |
| E10.41      | Type 1 diabetes mellitus with diabetic mononeuropathy                                                                                                             | Diagnosis            | ICD-10-CM        |
| E10.42      | Type 1 diabetes mellitus with diabetic polyneuropathy                                                                                                             | Diagnosis            | ICD-10-CM        |
| E10.43      | Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy                                                                                                 | Diagnosis            | ICD-10-CM        |
| E10.44      | Type 1 diabetes mellitus with diabetic amyotrophy                                                                                                                 | Diagnosis            | ICD-10-CM        |
| E10.49      | Type 1 diabetes mellitus with other diabetic neurological complication                                                                                            | Diagnosis            | ICD-10-CM        |
| E10.5       | Type 1 diabetes mellitus with circulatory complications                                                                                                           | Diagnosis            | ICD-10-CM        |
| E10.51      | Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene                                                                                     | Diagnosis            | ICD-10-CM        |
| E10.52      | Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene                                                                                        | Diagnosis            | ICD-10-CM        |
| E10.59      | Type 1 diabetes mellitus with other circulatory complications                                                                                                     | Diagnosis            | ICD-10-CM        |
| E10.6       | Type 1 diabetes mellitus with other specified complications                                                                                                       | Diagnosis            | ICD-10-CM        |
| E10.61      | Type 1 diabetes mellitus with diabetic arthropathy                                                                                                                | Diagnosis            | ICD-10-CM        |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b>            | <b>Description</b>                                                                                         | <b>Code Category</b> | <b>Code Type</b> |
|------------------------|------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E10.610                | Type 1 diabetes mellitus with diabetic neuropathic arthropathy                                             | Diagnosis            | ICD-10-CM        |
| E10.618                | Type 1 diabetes mellitus with other diabetic arthropathy                                                   | Diagnosis            | ICD-10-CM        |
| E10.62                 | Type 1 diabetes mellitus with skin complications                                                           | Diagnosis            | ICD-10-CM        |
| E10.620                | Type 1 diabetes mellitus with diabetic dermatitis                                                          | Diagnosis            | ICD-10-CM        |
| E10.621                | Type 1 diabetes mellitus with foot ulcer                                                                   | Diagnosis            | ICD-10-CM        |
| E10.622                | Type 1 diabetes mellitus with other skin ulcer                                                             | Diagnosis            | ICD-10-CM        |
| E10.628                | Type 1 diabetes mellitus with other skin complications                                                     | Diagnosis            | ICD-10-CM        |
| E10.63                 | Type 1 diabetes mellitus with oral complications                                                           | Diagnosis            | ICD-10-CM        |
| E10.630                | Type 1 diabetes mellitus with periodontal disease                                                          | Diagnosis            | ICD-10-CM        |
| E10.638                | Type 1 diabetes mellitus with other oral complications                                                     | Diagnosis            | ICD-10-CM        |
| E10.64                 | Type 1 diabetes mellitus with hypoglycemia                                                                 | Diagnosis            | ICD-10-CM        |
| E10.641                | Type 1 diabetes mellitus with hypoglycemia with coma                                                       | Diagnosis            | ICD-10-CM        |
| E10.649                | Type 1 diabetes mellitus with hypoglycemia without coma                                                    | Diagnosis            | ICD-10-CM        |
| E10.65                 | Type 1 diabetes mellitus with hyperglycemia                                                                | Diagnosis            | ICD-10-CM        |
| E10.69                 | Type 1 diabetes mellitus with other specified complication                                                 | Diagnosis            | ICD-10-CM        |
| E10.8                  | Type 1 diabetes mellitus with unspecified complications                                                    | Diagnosis            | ICD-10-CM        |
| E10.9                  | Type 1 diabetes mellitus without complications                                                             | Diagnosis            | ICD-10-CM        |
| <b>Type 2 Diabetes</b> |                                                                                                            |                      |                  |
| 250.00                 | Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled | Diagnosis            | ICD-9-CM         |
| 250.02                 | Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled               | Diagnosis            | ICD-9-CM         |
| 250.10                 | Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled                        | Diagnosis            | ICD-9-CM         |
| 250.12                 | Diabetes with ketoacidosis, type II or unspecified type, uncontrolled                                      | Diagnosis            | ICD-9-CM         |
| 250.20                 | Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled                     | Diagnosis            | ICD-9-CM         |
| 250.22                 | Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled                                   | Diagnosis            | ICD-9-CM         |
| 250.30                 | Diabetes with other coma, type II or unspecified type, not stated as uncontrolled                          | Diagnosis            | ICD-9-CM         |
| 250.32                 | Diabetes with other coma, type II or unspecified type, uncontrolled                                        | Diagnosis            | ICD-9-CM         |
| 250.40                 | Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled                | Diagnosis            | ICD-9-CM         |
| 250.42                 | Diabetes with renal manifestations, type II or unspecified type, uncontrolled                              | Diagnosis            | ICD-9-CM         |
| 250.50                 | Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled           | Diagnosis            | ICD-9-CM         |
| 250.52                 | Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled                         | Diagnosis            | ICD-9-CM         |
| 250.60                 | Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled         | Diagnosis            | ICD-9-CM         |
| 250.62                 | Diabetes with neurological manifestations, type II or unspecified type, uncontrolled                       | Diagnosis            | ICD-9-CM         |
| 250.70                 | Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled    | Diagnosis            | ICD-9-CM         |
| 250.72                 | Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled                  | Diagnosis            | ICD-9-CM         |
| 250.80                 | Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled      | Diagnosis            | ICD-9-CM         |
| 250.82                 | Diabetes with other specified manifestations, type II or unspecified type, uncontrolled                    | Diagnosis            | ICD-9-CM         |



**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                              | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 250.90      | Diabetes with unspecified complication, type II or unspecified type, not stated as uncontrolled                 | Diagnosis            | ICD-9-CM         |
| 250.92      | Diabetes with unspecified complication, type II or unspecified type, uncontrolled                               | Diagnosis            | ICD-9-CM         |
| E11         | Type 2 diabetes mellitus                                                                                        | Diagnosis            | ICD-10-CM        |
| E11.0       | Type 2 diabetes mellitus with hyperosmolarity                                                                   | Diagnosis            | ICD-10-CM        |
| E11.00      | Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)        | Diagnosis            | ICD-10-CM        |
| E11.01      | Type 2 diabetes mellitus with hyperosmolarity with coma                                                         | Diagnosis            | ICD-10-CM        |
| E11.1       | Type 2 diabetes mellitus with ketoacidosis                                                                      | Diagnosis            | ICD-10-CM        |
| E11.10      | Type 2 diabetes mellitus with ketoacidosis without coma                                                         | Diagnosis            | ICD-10-CM        |
| E11.11      | Type 2 diabetes mellitus with ketoacidosis with coma                                                            | Diagnosis            | ICD-10-CM        |
| E11.2       | Type 2 diabetes mellitus with kidney complications                                                              | Diagnosis            | ICD-10-CM        |
| E11.21      | Type 2 diabetes mellitus with diabetic nephropathy                                                              | Diagnosis            | ICD-10-CM        |
| E11.22      | Type 2 diabetes mellitus with diabetic chronic kidney disease                                                   | Diagnosis            | ICD-10-CM        |
| E11.29      | Type 2 diabetes mellitus with other diabetic kidney complication                                                | Diagnosis            | ICD-10-CM        |
| E11.3       | Type 2 diabetes mellitus with ophthalmic complications                                                          | Diagnosis            | ICD-10-CM        |
| E11.31      | Type 2 diabetes mellitus with unspecified diabetic retinopathy                                                  | Diagnosis            | ICD-10-CM        |
| E11.311     | Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema                               | Diagnosis            | ICD-10-CM        |
| E11.319     | Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema                            | Diagnosis            | ICD-10-CM        |
| E11.32      | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy                                        | Diagnosis            | ICD-10-CM        |
| E11.321     | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema                     | Diagnosis            | ICD-10-CM        |
| E11.3211    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E11.3212    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E11.3213    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E11.3219    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E11.329     | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema                  | Diagnosis            | ICD-10-CM        |
| E11.3291    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E11.3292    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E11.3293    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E11.3299    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E11.33      | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy                                    | Diagnosis            | ICD-10-CM        |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E11.331     | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema                     | Diagnosis            | ICD-10-CM        |
| E11.3311    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E11.3312    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E11.3313    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E11.3319    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E11.339     | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema                  | Diagnosis            | ICD-10-CM        |
| E11.3391    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E11.3392    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E11.3393    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E11.3399    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E11.34      | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy                                          | Diagnosis            | ICD-10-CM        |
| E11.341     | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema                       | Diagnosis            | ICD-10-CM        |
| E11.3411    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye            | Diagnosis            | ICD-10-CM        |
| E11.3412    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye             | Diagnosis            | ICD-10-CM        |
| E11.3413    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral            | Diagnosis            | ICD-10-CM        |
| E11.3419    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye      | Diagnosis            | ICD-10-CM        |
| E11.349     | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema                    | Diagnosis            | ICD-10-CM        |
| E11.3491    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye         | Diagnosis            | ICD-10-CM        |
| E11.3492    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye          | Diagnosis            | ICD-10-CM        |
| E11.3493    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral         | Diagnosis            | ICD-10-CM        |
| E11.3499    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye   | Diagnosis            | ICD-10-CM        |
| E11.35      | Type 2 diabetes mellitus with proliferative diabetic retinopathy                                                    | Diagnosis            | ICD-10-CM        |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E11.351     | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema                                                                               | Diagnosis            | ICD-10-CM        |
| E11.3511    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye                                                                    | Diagnosis            | ICD-10-CM        |
| E11.3512    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye                                                                     | Diagnosis            | ICD-10-CM        |
| E11.3513    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral                                                                    | Diagnosis            | ICD-10-CM        |
| E11.3519    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye                                                              | Diagnosis            | ICD-10-CM        |
| E11.352     | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula                                            | Diagnosis            | ICD-10-CM        |
| E11.3521    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye                                 | Diagnosis            | ICD-10-CM        |
| E11.3522    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye                                  | Diagnosis            | ICD-10-CM        |
| E11.3523    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral                                 | Diagnosis            | ICD-10-CM        |
| E11.3529    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye                           | Diagnosis            | ICD-10-CM        |
| E11.353     | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula                                        | Diagnosis            | ICD-10-CM        |
| E11.3531    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye                             | Diagnosis            | ICD-10-CM        |
| E11.3532    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye                              | Diagnosis            | ICD-10-CM        |
| E11.3533    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral                             | Diagnosis            | ICD-10-CM        |
| E11.3539    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye                       | Diagnosis            | ICD-10-CM        |
| E11.354     | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment                  | Diagnosis            | ICD-10-CM        |
| E11.3541    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye       | Diagnosis            | ICD-10-CM        |
| E11.3542    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye        | Diagnosis            | ICD-10-CM        |
| E11.3543    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral       | Diagnosis            | ICD-10-CM        |
| E11.3549    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye | Diagnosis            | ICD-10-CM        |
| E11.355     | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy                                                                                           | Diagnosis            | ICD-10-CM        |
| E11.3551    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye                                                                                | Diagnosis            | ICD-10-CM        |
| E11.3552    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye                                                                                 | Diagnosis            | ICD-10-CM        |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| <b>Code</b> | <b>Description</b>                                                                                      | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E11.3553    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral                      | Diagnosis            | ICD-10-CM        |
| E11.3559    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye                | Diagnosis            | ICD-10-CM        |
| E11.359     | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema                  | Diagnosis            | ICD-10-CM        |
| E11.3591    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E11.3592    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E11.3593    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E11.3599    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E11.36      | Type 2 diabetes mellitus with diabetic cataract                                                         | Diagnosis            | ICD-10-CM        |
| E11.37      | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment                      | Diagnosis            | ICD-10-CM        |
| E11.37X1    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye           | Diagnosis            | ICD-10-CM        |
| E11.37X2    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye            | Diagnosis            | ICD-10-CM        |
| E11.37X3    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral           | Diagnosis            | ICD-10-CM        |
| E11.37X9    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye     | Diagnosis            | ICD-10-CM        |
| E11.39      | Type 2 diabetes mellitus with other diabetic ophthalmic complication                                    | Diagnosis            | ICD-10-CM        |
| E11.4       | Type 2 diabetes mellitus with neurological complications                                                | Diagnosis            | ICD-10-CM        |
| E11.40      | Type 2 diabetes mellitus with diabetic neuropathy, unspecified                                          | Diagnosis            | ICD-10-CM        |
| E11.41      | Type 2 diabetes mellitus with diabetic mononeuropathy                                                   | Diagnosis            | ICD-10-CM        |
| E11.42      | Type 2 diabetes mellitus with diabetic polyneuropathy                                                   | Diagnosis            | ICD-10-CM        |
| E11.43      | Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy                                       | Diagnosis            | ICD-10-CM        |
| E11.44      | Type 2 diabetes mellitus with diabetic amyotrophy                                                       | Diagnosis            | ICD-10-CM        |
| E11.49      | Type 2 diabetes mellitus with other diabetic neurological complication                                  | Diagnosis            | ICD-10-CM        |
| E11.5       | Type 2 diabetes mellitus with circulatory complications                                                 | Diagnosis            | ICD-10-CM        |
| E11.51      | Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene                           | Diagnosis            | ICD-10-CM        |
| E11.52      | Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene                              | Diagnosis            | ICD-10-CM        |
| E11.59      | Type 2 diabetes mellitus with other circulatory complications                                           | Diagnosis            | ICD-10-CM        |
| E11.6       | Type 2 diabetes mellitus with other specified complications                                             | Diagnosis            | ICD-10-CM        |
| E11.61      | Type 2 diabetes mellitus with diabetic arthropathy                                                      | Diagnosis            | ICD-10-CM        |
| E11.610     | Type 2 diabetes mellitus with diabetic neuropathic arthropathy                                          | Diagnosis            | ICD-10-CM        |
| E11.618     | Type 2 diabetes mellitus with other diabetic arthropathy                                                | Diagnosis            | ICD-10-CM        |
| E11.62      | Type 2 diabetes mellitus with skin complications                                                        | Diagnosis            | ICD-10-CM        |
| E11.620     | Type 2 diabetes mellitus with diabetic dermatitis                                                       | Diagnosis            | ICD-10-CM        |
| E11.621     | Type 2 diabetes mellitus with foot ulcer                                                                | Diagnosis            | ICD-10-CM        |
| E11.622     | Type 2 diabetes mellitus with other skin ulcer                                                          | Diagnosis            | ICD-10-CM        |
| E11.628     | Type 2 diabetes mellitus with other skin complications                                                  | Diagnosis            | ICD-10-CM        |

**Appendix F. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request**

| Code    | Description                                                | Code      |           |
|---------|------------------------------------------------------------|-----------|-----------|
|         |                                                            | Category  | Code Type |
| E11.63  | Type 2 diabetes mellitus with oral complications           | Diagnosis | ICD-10-CM |
| E11.630 | Type 2 diabetes mellitus with periodontal disease          | Diagnosis | ICD-10-CM |
| E11.638 | Type 2 diabetes mellitus with other oral complications     | Diagnosis | ICD-10-CM |
| E11.64  | Type 2 diabetes mellitus with hypoglycemia                 | Diagnosis | ICD-10-CM |
| E11.641 | Type 2 diabetes mellitus with hypoglycemia with coma       | Diagnosis | ICD-10-CM |
| E11.649 | Type 2 diabetes mellitus with hypoglycemia without coma    | Diagnosis | ICD-10-CM |
| E11.65  | Type 2 diabetes mellitus with hyperglycemia                | Diagnosis | ICD-10-CM |
| E11.69  | Type 2 diabetes mellitus with other specified complication | Diagnosis | ICD-10-CM |
| E11.8   | Type 2 diabetes mellitus with unspecified complications    | Diagnosis | ICD-10-CM |
| E11.9   | Type 2 diabetes mellitus without complications             | Diagnosis | ICD-10-CM |

**Note:** National Drug Codes (NDCs) for products in Appendix E are also searched for in the Procedure table to define inclusion and exclusion criteria.

**Appendix G. List of Generic and Brand Names of Medical Products Used to Define Censoring Criteria in this Request**

| Generic Name                                                                             | Brand Name                             |
|------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Alogliptin</b>                                                                        |                                        |
| alogliptin                                                                               | alogliptin and metformin hydrochloride |
| alogliptin                                                                               | alogliptin and pioglitazone            |
| alogliptin                                                                               | kazano                                 |
| alogliptin                                                                               | oseni                                  |
| alogliptin and metformin hydrochloride                                                   | nesina                                 |
| alogliptin and metformin hydrochloride                                                   | oseni                                  |
| alogliptin and pioglitazone                                                              | alogliptin and metformin hydrochloride |
| alogliptin and pioglitazone                                                              | alogliptin and pioglitazone            |
| alogliptin and pioglitazone                                                              | kazano                                 |
| alogliptin and pioglitazone                                                              | nesina                                 |
| alogliptin benzoate                                                                      | alogliptin                             |
| alogliptin benzoate                                                                      | nesina                                 |
| alogliptin benzoate/metformin HCl                                                        | alogliptin-metformin                   |
| alogliptin benzoate/metformin HCl                                                        | kazano                                 |
| alogliptin benzoate/pioglitazone HCl                                                     | alogliptin-pioglitazone                |
| alogliptin benzoate/pioglitazone HCl                                                     | oseni                                  |
| <b>Bexagliflozin</b>                                                                     |                                        |
| bexagliflozin                                                                            | bexagliflozin                          |
| bexagliflozin                                                                            | brenzavvy                              |
| <b>Canagliflozin</b>                                                                     |                                        |
| canagliflozin                                                                            | invokana                               |
| canagliflozin/metformin HCl                                                              | invokamet                              |
| canagliflozin/metformin HCl                                                              | invokamet XR                           |
| <b>Dapagliflozin</b>                                                                     |                                        |
| dapagliflozin                                                                            | xigduo                                 |
| dapagliflozin and metformin hydrochloride                                                | farxiga                                |
| dapagliflozin propanediol                                                                | dapagliflozin propanediol              |
| dapagliflozin propanediol                                                                | farxiga                                |
| dapagliflozin propanediol/metformin HCl                                                  | dapaglifloz propaned-metformin         |
| dapagliflozin propanediol/metformin HCl                                                  | xigduo XR                              |
| <b>Dipeptidyl Peptidase-4 (DPP-4)/Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors</b> |                                        |
| dapagliflozin propanediol/saxagliptin HCl                                                | qtern                                  |
| empagliflozin, linagliptin, metformin hydrochloride                                      | trijardy XR                            |
| empagliflozin/linagliptin                                                                | glyxambi                               |
| empagliflozin/linagliptin/metformin HCl                                                  | trijardy XR                            |
| ertugliflozin and sitagliptin                                                            | steglujan                              |
| ertugliflozin pidolate/sitagliptin phosphate                                             | steglujan                              |
| <b>Empagliflozin</b>                                                                     |                                        |
| empagliflozin                                                                            | jardiance                              |
| empagliflozin                                                                            | trijardy xr                            |
| empagliflozin and metformin hydrochloride                                                | jardiance                              |
| empagliflozin/metformin HCl                                                              | synjardy                               |
| empagliflozin/metformin HCl                                                              | synjardy xr                            |
| <b>Ertugliflozin</b>                                                                     |                                        |
| ertugliflozin                                                                            | steglatro                              |
| ertugliflozin and metformin hydrochloride                                                | segluromet                             |
| ertugliflozin pidolate                                                                   | steglatro                              |

**Appendix G. List of Generic and Brand Names of Medical Products Used to Define Censoring Criteria in this Request**

| Generic Name                                                                                                                    | Brand Name                     |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| ertugliflozin pidolate/metformin HCl                                                                                            | segluromet                     |
| <b>Glucagon-Like Peptide-1 Receptor Agonist (GLP1-RA), Including Glucose-Dependent Insulinotropic Polypeptide (GIP)/GLP-1RA</b> |                                |
| albiglutide                                                                                                                     | tanzeum                        |
| dulaglutide                                                                                                                     | trulicity                      |
| exenatide                                                                                                                       | byetta                         |
| exenatide                                                                                                                       | exenatide                      |
| exenatide microspheres                                                                                                          | bydureon                       |
| exenatide microspheres                                                                                                          | bydureon bcise                 |
| insulin degludec/liraglutide                                                                                                    | xultophy 100/3.6               |
| insulin glargine and lixisenatide                                                                                               | soliqua 100/33                 |
| insulin glargine,human recombinant analog/lixisenatide                                                                          | soliqua 100/33                 |
| liraglutide                                                                                                                     | liraglutide                    |
| liraglutide                                                                                                                     | saxenda                        |
| liraglutide                                                                                                                     | victoza                        |
| liraglutide                                                                                                                     | victoza 2-pak                  |
| liraglutide                                                                                                                     | victoza 3-pak                  |
| lixisenatide                                                                                                                    | adlyxin                        |
| oral semaglutide                                                                                                                | rybelsus                       |
| semaglutide                                                                                                                     | ozempic                        |
| semaglutide                                                                                                                     | rybelsus                       |
| semaglutide                                                                                                                     | semaglutide                    |
| semaglutide                                                                                                                     | wegovy                         |
| tirzepatide                                                                                                                     | mounjaro                       |
| tirzepatide                                                                                                                     | tirzepatide                    |
| tirzepatide                                                                                                                     | zepbound                       |
| <b>Insulin</b>                                                                                                                  |                                |
| insulin NPH human isophane                                                                                                      | humulin n nph insulin kwikpen  |
| insulin NPH human isophane                                                                                                      | humulin n nph u-100 insulin    |
| insulin NPH human isophane                                                                                                      | humulin n pen                  |
| insulin NPH human isophane                                                                                                      | novolin n flexpen              |
| insulin NPH human isophane                                                                                                      | novolin n nph u-100 insulin    |
| insulin NPH human isophane/insulin regular, human                                                                               | humulin 50/50                  |
| insulin NPH human isophane/insulin regular, human                                                                               | humulin 70/30 insulin pen      |
| insulin NPH human isophane/insulin regular, human                                                                               | humulin 70/30 u-100 insulin    |
| insulin NPH human isophane/insulin regular, human                                                                               | humulin 70/30 u-100 kwikpen    |
| insulin NPH human isophane/insulin regular, human                                                                               | novolin 70-30 flexpen u-100    |
| insulin NPH human isophane/insulin regular, human                                                                               | novolin 70/30 innolet insulin  |
| insulin NPH human isophane/insulin regular, human                                                                               | novolin 70/30 penfill          |
| insulin NPH human isophane/insulin regular, human                                                                               | novolin 70/30 u-100 insulin    |
| insulin aspart                                                                                                                  | insulin aspart u-100           |
| insulin aspart                                                                                                                  | novolog flexpen u-100 insulin  |
| insulin aspart                                                                                                                  | novolog penfill u-100 insulin  |
| insulin aspart                                                                                                                  | novolog u-100 insulin aspart   |
| insulin aspart (niacinamide)                                                                                                    | fiasp flextouch u-100 insulin  |
| insulin aspart (niacinamide)                                                                                                    | fiasp penfill u-100 insulin    |
| insulin aspart (niacinamide)                                                                                                    | fiasp u-100 insulin            |
| insulin aspart (niacinamide)/pump cartridge                                                                                     | fiasp pumpcart                 |
| insulin aspart protamine human/insulin aspart                                                                                   | insulin asp prt-insulin aspart |



**Appendix G. List of Generic and Brand Names of Medical Products Used to Define Censoring Criteria in this Request**

| Generic Name                                           | Brand Name                      |
|--------------------------------------------------------|---------------------------------|
| insulin aspart protamine human/insulin aspart          | novolog mix 70-30 u-100 insulin |
| insulin aspart protamine human/insulin aspart          | novolog mix 70-30flexpen u-100  |
| insulin degludec                                       | insulin degludec                |
| insulin degludec                                       | tresiba flextouch u-100         |
| insulin degludec                                       | tresiba flextouch u-200         |
| insulin degludec                                       | tresiba u-100 insulin           |
| insulin degludec/liraglutide                           | xultophy 100/3.6                |
| insulin detemir                                        | levemir flexpen                 |
| insulin detemir                                        | levemir flextouch u100 insulin  |
| insulin detemir                                        | levemir u-100 insulin           |
| insulin glargine and lixisenatide                      | soliqua 100/33                  |
| insulin glargine,human recombinant analog              | basaglar kwikpen u-100 insulin  |
| insulin glargine,human recombinant analog              | basaglar tempo pen(u-100)insln  |
| insulin glargine,human recombinant analog              | insulin glargine                |
| insulin glargine,human recombinant analog              | insulin glargine u-300 conc     |
| insulin glargine,human recombinant analog              | lantus solostar u-100 insulin   |
| insulin glargine,human recombinant analog              | lantus u-100 insulin            |
| insulin glargine,human recombinant analog              | semglee pen u-100 insulin       |
| insulin glargine,human recombinant analog              | semglee u-100 insulin           |
| insulin glargine,human recombinant analog              | toujeo max u-300 solostar       |
| insulin glargine,human recombinant analog              | toujeo solostar u-300 insulin   |
| insulin glargine,human recombinant analog/lixisenatide | soliqua 100/33                  |
| insulin glargine-aglr                                  | rezvoglar kwikpen               |
| insulin glargine-yfgn                                  | insulin glargine-yfgn           |
| insulin glargine-yfgn                                  | semglee(insulin glarg-yfgn)pen  |
| insulin glargine-yfgn                                  | semglee(insulin glargine-yfgn)  |
| insulin glulisine                                      | apidra solostar u-100 insulin   |
| insulin glulisine                                      | apidra u-100 insulin            |
| insulin lispro                                         | admelog solostar u-100 insulin  |
| insulin lispro                                         | admelog u-100 insulin lispro    |
| insulin lispro                                         | humalog junior kwikpen u-100    |
| insulin lispro                                         | humalog kwikpen insulin         |
| insulin lispro                                         | humalog tempo pen(u-100)insuln  |
| insulin lispro                                         | humalog u-100 insulin           |
| insulin lispro                                         | insulin lispro                  |
| insulin lispro protamine and insulin lispro            | humalog mix 50-50 insulin u-100 |
| insulin lispro protamine and insulin lispro            | humalog mix 50-50 kwikpen       |
| insulin lispro protamine and insulin lispro            | humalog mix 75-25 kwikpen       |
| insulin lispro protamine and insulin lispro            | humalog mix 75-25(u-100)insuln  |
| insulin lispro protamine and insulin lispro            | insulin lispro protamin-lispro  |
| insulin lispro-aabc                                    | lyumjev kwikpen u-100 insulin   |
| insulin lispro-aabc                                    | lyumjev kwikpen u-200 insulin   |
| insulin lispro-aabc                                    | lyumjev tempo pen(u-100)insuln  |
| insulin lispro-aabc                                    | lyumjev u-100 insulin           |
| insulin regular, human                                 | afrezza                         |
| insulin regular, human                                 | humulin r regular u-100 insulin |
| insulin regular, human                                 | humulin r u-500 (conc) insulin  |
| insulin regular, human                                 | humulin r u-500 (conc) kwikpen  |



**Appendix G. List of Generic and Brand Names of Medical Products Used to Define Censoring Criteria in this Request**

| <b>Generic Name</b>                             | <b>Brand Name</b>                       |
|-------------------------------------------------|-----------------------------------------|
| insulin regular, human                          | novolin r flexpen                       |
| insulin regular, human                          | novolin r regular u100 insulin          |
| insulin regular, human in 0.9 % sodium chloride | myxredlin                               |
| <b>Linagliptin</b>                              |                                         |
| linagliptin                                     | tradjenta                               |
| linagliptin and metformin hydrochloride         | glyxambi                                |
| linagliptin and metformin hydrochloride         | jentadueto XR                           |
| linagliptin and metformin hydrochloride         | tradjenta                               |
| linagliptin/metformin HCl                       | jentadueto                              |
| linagliptin/metformin HCl                       | jentadueto XR                           |
| <b>Saxagliptin</b>                              |                                         |
| saxagliptin                                     | onglyza                                 |
| saxagliptin                                     | saxagliptin                             |
| saxagliptin HCl                                 | onglyza                                 |
| saxagliptin HCl                                 | saxagliptin                             |
| saxagliptin HCl/metformin HCl                   | kombiglyze XR                           |
| saxagliptin HCl/metformin HCl                   | saxagliptin-metformin                   |
| <b>Sitagliptin</b>                              |                                         |
| sitagliptin                                     | januvia                                 |
| sitagliptin                                     | sitagliptin                             |
| sitagliptin                                     | zituvo                                  |
| sitagliptin and metformin hydrochloride         | janumet                                 |
| sitagliptin and metformin hydrochloride         | sitagliptin and metformin hydrochloride |
| sitagliptin and metformin hydrochloride         | zituvo                                  |
| sitagliptin and metformin hydrochloride         | zituvo XR                               |
| sitagliptin hydrochloride oral                  | januvia                                 |
| sitagliptin phosphate                           | januvia                                 |
| sitagliptin phosphate/metformin HCl             | janumet                                 |
| sitagliptin phosphate/metformin HCl             | janumet XR                              |
| sitagliptin phosphate/simvastatin               | juvisync                                |
| <b>Sotagliflozin</b>                            |                                         |
| sotagliflozin                                   | inpefa                                  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code                                         | Description                                                                                                                                          | Code Category | Code Type |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| <b>Chronic Kidney Disease (Stages III-V)</b> |                                                                                                                                                      |               |           |
| 403.01                                       | Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease                                       | Diagnosis     | ICD-9-CM  |
| 403.11                                       | Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease                                          | Diagnosis     | ICD-9-CM  |
| 403.91                                       | Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease                                     | Diagnosis     | ICD-9-CM  |
| 404.02                                       | Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease   | Diagnosis     | ICD-9-CM  |
| 404.03                                       | Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease      | Diagnosis     | ICD-9-CM  |
| 404.12                                       | Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease      | Diagnosis     | ICD-9-CM  |
| 404.13                                       | Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease              | Diagnosis     | ICD-9-CM  |
| 404.92                                       | Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease | Diagnosis     | ICD-9-CM  |
| 404.93                                       | Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease         | Diagnosis     | ICD-9-CM  |
| 585.3                                        | Chronic kidney disease, Stage III (moderate)                                                                                                         | Diagnosis     | ICD-9-CM  |
| 585.4                                        | Chronic kidney disease, Stage IV (severe)                                                                                                            | Diagnosis     | ICD-9-CM  |
| 585.5                                        | Chronic kidney disease, Stage V                                                                                                                      | Diagnosis     | ICD-9-CM  |
| 585.6                                        | End stage renal disease                                                                                                                              | Diagnosis     | ICD-9-CM  |
| I12.0                                        | Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease                                                   | Diagnosis     | ICD-10-CM |
| I13.11                                       | Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease                 | Diagnosis     | ICD-10-CM |
| I13.2                                        | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease                 | Diagnosis     | ICD-10-CM |
| N18.3                                        | Chronic kidney disease, stage 3 (moderate)                                                                                                           | Diagnosis     | ICD-10-CM |
| N18.30                                       | Chronic kidney disease, stage 3 unspecified                                                                                                          | Diagnosis     | ICD-10-CM |
| N18.31                                       | Chronic kidney disease, stage 3a                                                                                                                     | Diagnosis     | ICD-10-CM |
| N18.32                                       | Chronic kidney disease, stage 3b                                                                                                                     | Diagnosis     | ICD-10-CM |
| N18.4                                        | Chronic kidney disease, stage 4 (severe)                                                                                                             | Diagnosis     | ICD-10-CM |
| N18.5                                        | Chronic kidney disease, stage 5                                                                                                                      | Diagnosis     | ICD-10-CM |
| N18.6                                        | End stage renal disease                                                                                                                              | Diagnosis     | ICD-10-CM |
| <b>Dialysis</b>                              |                                                                                                                                                      |               |           |
| 458.21                                       | Hypotension of hemodialysis                                                                                                                          | Diagnosis     | ICD-9-CM  |
| 792.5                                        | Cloudy (hemodialysis) (peritoneal) dialysis effluent                                                                                                 | Diagnosis     | ICD-9-CM  |
| 996.56                                       | Mechanical complications due to peritoneal dialysis catheter                                                                                         | Diagnosis     | ICD-9-CM  |
| 996.68                                       | Infection and inflammatory reaction due to peritoneal dialysis catheter                                                                              | Diagnosis     | ICD-9-CM  |
| 996.73                                       | Other complications due to renal dialysis device, implant, and graft                                                                                 | Diagnosis     | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code     | Description                                                                                                                                              | Code      |            |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|          |                                                                                                                                                          | Category  | Code Type  |
| E870.2   | Accidental cut, puncture, perforation, or hemorrhage during kidney dialysis or other perfusion                                                           | Diagnosis | ICD-9-CM   |
| E871.2   | Foreign object left in body during kidney dialysis or other perfusion                                                                                    | Diagnosis | ICD-9-CM   |
| E872.2   | Failure of sterile precautions during kidney dialysis and other perfusion                                                                                | Diagnosis | ICD-9-CM   |
| E874.2   | Mechanical failure of instrument or apparatus during kidney dialysis and other perfusion                                                                 | Diagnosis | ICD-9-CM   |
| E879.1   | Kidney dialysis as the cause of abnormal reaction of patient, or of later complication, without mention of misadventure at time of procedure             | Diagnosis | ICD-9-CM   |
| I95.3    | Hypotension of hemodialysis                                                                                                                              | Diagnosis | ICD-10-CM  |
| R88.0    | Cloudy (hemodialysis) (peritoneal) dialysis effluent                                                                                                     | Diagnosis | ICD-10-CM  |
| T85.611A | Breakdown (mechanical) of intraperitoneal dialysis catheter, initial encounter                                                                           | Diagnosis | ICD-10-CM  |
| T85.621A | Displacement of intraperitoneal dialysis catheter, initial encounter                                                                                     | Diagnosis | ICD-10-CM  |
| T85.631A | Leakage of intraperitoneal dialysis catheter, initial encounter                                                                                          | Diagnosis | ICD-10-CM  |
| T85.691A | Other mechanical complication of intraperitoneal dialysis catheter, initial encounter                                                                    | Diagnosis | ICD-10-CM  |
| T85.71XA | Infection and inflammatory reaction due to peritoneal dialysis catheter, initial encounter                                                               | Diagnosis | ICD-10-CM  |
| V45.1    | Renal dialysis status                                                                                                                                    | Diagnosis | ICD-9-CM   |
| V45.11   | Renal dialysis status                                                                                                                                    | Diagnosis | ICD-9-CM   |
| V56      | Encounter for dialysis and dialysis catheter care                                                                                                        | Diagnosis | ICD-9-CM   |
| V56.0    | Encounter for extracorporeal dialysis                                                                                                                    | Diagnosis | ICD-9-CM   |
| V56.1    | Fitting and adjustment of extracorporeal dialysis catheter                                                                                               | Diagnosis | ICD-9-CM   |
| V56.2    | Fitting and adjustment of peritoneal dialysis catheter                                                                                                   | Diagnosis | ICD-9-CM   |
| V56.3    | Encounter for adequacy testing for dialysis                                                                                                              | Diagnosis | ICD-9-CM   |
| V56.31   | Encounter for adequacy testing for hemodialysis                                                                                                          | Diagnosis | ICD-9-CM   |
| V56.32   | Encounter for adequacy testing for peritoneal dialysis                                                                                                   | Diagnosis | ICD-9-CM   |
| V56.8    | Encounter other dialysis                                                                                                                                 | Diagnosis | ICD-9-CM   |
| Y62.2    | Failure of sterile precautions during kidney dialysis and other perfusion                                                                                | Diagnosis | ICD-10-CM  |
| Y84.1    | Kidney dialysis as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure | Diagnosis | ICD-10-CM  |
| Z49.0    | Preparatory care for renal dialysis                                                                                                                      | Diagnosis | ICD-10-CM  |
| Z49.01   | Encounter for fitting and adjustment of extracorporeal dialysis catheter                                                                                 | Diagnosis | ICD-10-CM  |
| Z49.02   | Encounter for fitting and adjustment of peritoneal dialysis catheter                                                                                     | Diagnosis | ICD-10-CM  |
| Z49.3    | Encounter for adequacy testing for dialysis                                                                                                              | Diagnosis | ICD-10-CM  |
| Z49.31   | Encounter for adequacy testing for hemodialysis                                                                                                          | Diagnosis | ICD-10-CM  |
| Z49.32   | Encounter for adequacy testing for peritoneal dialysis                                                                                                   | Diagnosis | ICD-10-CM  |
| Z91.15   | Patient's noncompliance with renal dialysis                                                                                                              | Diagnosis | ICD-10-CM  |
| Z99.2    | Dependence on renal dialysis                                                                                                                             | Diagnosis | ICD-10-CM  |
| 031209D  | Bypass Innominate Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach                                                                  | Procedure | ICD-10-PCS |
| 031209F  | Bypass Innominate Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach                                                                  | Procedure | ICD-10-PCS |
| 03120AD  | Bypass Innominate Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach                                                                | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                          | Code      |            |
|---------|------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                      | Category  | Code Type  |
| 03120AF | Bypass Innominate Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 03120JD | Bypass Innominate Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                  | Procedure | ICD-10-PCS |
| 03120JF | Bypass Innominate Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                  | Procedure | ICD-10-PCS |
| 03120KD | Bypass Innominate Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach       | Procedure | ICD-10-PCS |
| 03120KF | Bypass Innominate Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach       | Procedure | ICD-10-PCS |
| 03120ZD | Bypass Innominate Artery to Upper Arm Vein, Open Approach                                            | Procedure | ICD-10-PCS |
| 03120ZF | Bypass Innominate Artery to Lower Arm Vein, Open Approach                                            | Procedure | ICD-10-PCS |
| 031309D | Bypass Right Subclavian Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach        | Procedure | ICD-10-PCS |
| 031309F | Bypass Right Subclavian Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach        | Procedure | ICD-10-PCS |
| 03130AD | Bypass Right Subclavian Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach      | Procedure | ICD-10-PCS |
| 03130AF | Bypass Right Subclavian Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach      | Procedure | ICD-10-PCS |
| 03130JD | Bypass Right Subclavian Artery to Upper Arm Vein with Synthetic Substitute, Open Approach            | Procedure | ICD-10-PCS |
| 03130JF | Bypass Right Subclavian Artery to Lower Arm Vein with Synthetic Substitute, Open Approach            | Procedure | ICD-10-PCS |
| 03130KD | Bypass Right Subclavian Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach | Procedure | ICD-10-PCS |
| 03130KF | Bypass Right Subclavian Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach | Procedure | ICD-10-PCS |
| 03130ZD | Bypass Right Subclavian Artery to Upper Arm Vein, Open Approach                                      | Procedure | ICD-10-PCS |
| 03130ZF | Bypass Right Subclavian Artery to Lower Arm Vein, Open Approach                                      | Procedure | ICD-10-PCS |
| 031409D | Bypass Left Subclavian Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach         | Procedure | ICD-10-PCS |
| 031409F | Bypass Left Subclavian Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach         | Procedure | ICD-10-PCS |
| 03140AD | Bypass Left Subclavian Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach       | Procedure | ICD-10-PCS |
| 03140AF | Bypass Left Subclavian Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach       | Procedure | ICD-10-PCS |
| 03140JD | Bypass Left Subclavian Artery to Upper Arm Vein with Synthetic Substitute, Open Approach             | Procedure | ICD-10-PCS |
| 03140JF | Bypass Left Subclavian Artery to Lower Arm Vein with Synthetic Substitute, Open Approach             | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                            | Code      |            |
|---------|--------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                        | Category  | Code Type  |
| 03140KD | Bypass Left Subclavian Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach    | Procedure | ICD-10-PCS |
| 03140KF | Bypass Left Subclavian Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach    | Procedure | ICD-10-PCS |
| 03140ZD | Bypass Left Subclavian Artery to Upper Arm Vein, Open Approach                                         | Procedure | ICD-10-PCS |
| 03140ZF | Bypass Left Subclavian Artery to Lower Arm Vein, Open Approach                                         | Procedure | ICD-10-PCS |
| 031509D | Bypass Right Axillary Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 031509F | Bypass Right Axillary Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 031509V | Bypass Right Axillary Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach        | Procedure | ICD-10-PCS |
| 03150AD | Bypass Right Axillary Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure | ICD-10-PCS |
| 03150AF | Bypass Right Axillary Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure | ICD-10-PCS |
| 03150AV | Bypass Right Axillary Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach      | Procedure | ICD-10-PCS |
| 03150JD | Bypass Right Axillary Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                | Procedure | ICD-10-PCS |
| 03150JF | Bypass Right Axillary Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                | Procedure | ICD-10-PCS |
| 03150JV | Bypass Right Axillary Artery to Superior Vena Cava with Synthetic Substitute, Open Approach            | Procedure | ICD-10-PCS |
| 03150KD | Bypass Right Axillary Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure | ICD-10-PCS |
| 03150KF | Bypass Right Axillary Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure | ICD-10-PCS |
| 03150KV | Bypass Right Axillary Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach | Procedure | ICD-10-PCS |
| 03150ZD | Bypass Right Axillary Artery to Upper Arm Vein, Open Approach                                          | Procedure | ICD-10-PCS |
| 03150ZF | Bypass Right Axillary Artery to Lower Arm Vein, Open Approach                                          | Procedure | ICD-10-PCS |
| 03150ZV | Bypass Right Axillary Artery to Superior Vena Cava, Open Approach                                      | Procedure | ICD-10-PCS |
| 031609D | Bypass Left Axillary Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach             | Procedure | ICD-10-PCS |
| 031609F | Bypass Left Axillary Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach             | Procedure | ICD-10-PCS |
| 031609V | Bypass Left Axillary Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach         | Procedure | ICD-10-PCS |
| 03160AD | Bypass Left Axillary Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach           | Procedure | ICD-10-PCS |
| 03160AF | Bypass Left Axillary Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach           | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                            | Code      |            |
|---------|--------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                        | Category  | Code Type  |
| 03160AV | Bypass Left Axillary Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach       | Procedure | ICD-10-PCS |
| 03160JD | Bypass Left Axillary Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                 | Procedure | ICD-10-PCS |
| 03160JF | Bypass Left Axillary Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                 | Procedure | ICD-10-PCS |
| 03160JV | Bypass Left Axillary Artery to Superior Vena Cava with Synthetic Substitute, Open Approach             | Procedure | ICD-10-PCS |
| 03160KD | Bypass Left Axillary Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach      | Procedure | ICD-10-PCS |
| 03160KF | Bypass Left Axillary Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach      | Procedure | ICD-10-PCS |
| 03160KV | Bypass Left Axillary Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach  | Procedure | ICD-10-PCS |
| 03160ZD | Bypass Left Axillary Artery to Upper Arm Vein, Open Approach                                           | Procedure | ICD-10-PCS |
| 03160ZF | Bypass Left Axillary Artery to Lower Arm Vein, Open Approach                                           | Procedure | ICD-10-PCS |
| 03160ZV | Bypass Left Axillary Artery to Superior Vena Cava, Open Approach                                       | Procedure | ICD-10-PCS |
| 031709D | Bypass Right Brachial Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 031709F | Bypass Right Brachial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 031709V | Bypass Right Brachial Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach        | Procedure | ICD-10-PCS |
| 03170AD | Bypass Right Brachial Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure | ICD-10-PCS |
| 03170AF | Bypass Right Brachial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure | ICD-10-PCS |
| 03170AV | Bypass Right Brachial Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach      | Procedure | ICD-10-PCS |
| 03170JD | Bypass Right Brachial Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                | Procedure | ICD-10-PCS |
| 03170JF | Bypass Right Brachial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                | Procedure | ICD-10-PCS |
| 03170JV | Bypass Right Brachial Artery to Superior Vena Cava with Synthetic Substitute, Open Approach            | Procedure | ICD-10-PCS |
| 03170KD | Bypass Right Brachial Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure | ICD-10-PCS |
| 03170KF | Bypass Right Brachial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure | ICD-10-PCS |
| 03170KV | Bypass Right Brachial Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach | Procedure | ICD-10-PCS |
| 03170ZD | Bypass Right Brachial Artery to Upper Arm Vein, Open Approach                                          | Procedure | ICD-10-PCS |
| 03170ZF | Bypass Right Brachial Artery to Lower Arm Vein, Open Approach                                          | Procedure | ICD-10-PCS |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                           | Code      |            |
|---------|-------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                       | Category  | Code Type  |
| 03170ZV | Bypass Right Brachial Artery to Superior Vena Cava, Open Approach                                     | Procedure | ICD-10-PCS |
| 031809D | Bypass Left Brachial Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 031809F | Bypass Left Brachial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 031809V | Bypass Left Brachial Artery to Superior Vena Cava with Autologous Venous Tissue, Open Approach        | Procedure | ICD-10-PCS |
| 03180AD | Bypass Left Brachial Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure | ICD-10-PCS |
| 03180AF | Bypass Left Brachial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach          | Procedure | ICD-10-PCS |
| 03180AV | Bypass Left Brachial Artery to Superior Vena Cava with Autologous Arterial Tissue, Open Approach      | Procedure | ICD-10-PCS |
| 03180JD | Bypass Left Brachial Artery to Upper Arm Vein with Synthetic Substitute, Open Approach                | Procedure | ICD-10-PCS |
| 03180JF | Bypass Left Brachial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                | Procedure | ICD-10-PCS |
| 03180JV | Bypass Left Brachial Artery to Superior Vena Cava with Synthetic Substitute, Open Approach            | Procedure | ICD-10-PCS |
| 03180KD | Bypass Left Brachial Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure | ICD-10-PCS |
| 03180KF | Bypass Left Brachial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach     | Procedure | ICD-10-PCS |
| 03180KV | Bypass Left Brachial Artery to Superior Vena Cava with Nonautologous Tissue Substitute, Open Approach | Procedure | ICD-10-PCS |
| 03180ZD | Bypass Left Brachial Artery to Upper Arm Vein, Open Approach                                          | Procedure | ICD-10-PCS |
| 03180ZF | Bypass Left Brachial Artery to Lower Arm Vein, Open Approach                                          | Procedure | ICD-10-PCS |
| 03180ZV | Bypass Left Brachial Artery to Superior Vena Cava, Open Approach                                      | Procedure | ICD-10-PCS |
| 031909F | Bypass Right Ulnar Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach              | Procedure | ICD-10-PCS |
| 03190AF | Bypass Right Ulnar Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach            | Procedure | ICD-10-PCS |
| 03190JF | Bypass Right Ulnar Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                  | Procedure | ICD-10-PCS |
| 03190KF | Bypass Right Ulnar Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach       | Procedure | ICD-10-PCS |
| 03190ZF | Bypass Right Ulnar Artery to Lower Arm Vein, Open Approach                                            | Procedure | ICD-10-PCS |
| 031A09F | Bypass Left Ulnar Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach               | Procedure | ICD-10-PCS |
| 031A0AF | Bypass Left Ulnar Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach             | Procedure | ICD-10-PCS |
| 031A0JF | Bypass Left Ulnar Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                   | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                                                   | Code      |            |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                                               | Category  | Code Type  |
| 031A0KF | Bypass Left Ulnar Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach                                                                | Procedure | ICD-10-PCS |
| 031A0ZF | Bypass Left Ulnar Artery to Lower Arm Vein, Open Approach                                                                                                     | Procedure | ICD-10-PCS |
| 031B09F | Bypass Right Radial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach                                                                     | Procedure | ICD-10-PCS |
| 031B0AF | Bypass Right Radial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach                                                                   | Procedure | ICD-10-PCS |
| 031B0JF | Bypass Right Radial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                                                                         | Procedure | ICD-10-PCS |
| 031B0KF | Bypass Right Radial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach                                                              | Procedure | ICD-10-PCS |
| 031B0ZF | Bypass Right Radial Artery to Lower Arm Vein, Open Approach                                                                                                   | Procedure | ICD-10-PCS |
| 031C09F | Bypass Left Radial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach                                                                      | Procedure | ICD-10-PCS |
| 031C0AF | Bypass Left Radial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach                                                                    | Procedure | ICD-10-PCS |
| 031C0JF | Bypass Left Radial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach                                                                          | Procedure | ICD-10-PCS |
| 031C0KF | Bypass Left Radial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach                                                               | Procedure | ICD-10-PCS |
| 031C0ZF | Bypass Left Radial Artery to Lower Arm Vein, Open Approach                                                                                                    | Procedure | ICD-10-PCS |
| 03PY07Z | Removal of Autologous Tissue Substitute from Upper Artery, Open Approach                                                                                      | Procedure | ICD-10-PCS |
| 03PY0JZ | Removal of Synthetic Substitute from Upper Artery, Open Approach                                                                                              | Procedure | ICD-10-PCS |
| 03PY0KZ | Removal of Nonautologous Tissue Substitute from Upper Artery, Open Approach                                                                                   | Procedure | ICD-10-PCS |
| 03PY37Z | Removal of Autologous Tissue Substitute from Upper Artery, Percutaneous Approach                                                                              | Procedure | ICD-10-PCS |
| 03PY3JZ | Removal of Synthetic Substitute from Upper Artery, Percutaneous Approach                                                                                      | Procedure | ICD-10-PCS |
| 03PY3KZ | Removal of Nonautologous Tissue Substitute from Upper Artery, Percutaneous Approach                                                                           | Procedure | ICD-10-PCS |
| 03PY47Z | Removal of Autologous Tissue Substitute from Upper Artery, Percutaneous Endoscopic Approach                                                                   | Procedure | ICD-10-PCS |
| 03PY4JZ | Removal of Synthetic Substitute from Upper Artery, Percutaneous Endoscopic Approach                                                                           | Procedure | ICD-10-PCS |
| 03PY4KZ | Removal of Nonautologous Tissue Substitute from Upper Artery, Percutaneous Endoscopic Approach                                                                | Procedure | ICD-10-PCS |
| 0505F   | Hemodialysis plan of care documented (ESRD, P-ESRD)                                                                                                           | Procedure | CPT-2      |
| 0507F   | Peritoneal dialysis plan of care documented (ESRD)                                                                                                            | Procedure | CPT-2      |
| 05HY33Z | Insertion of Infusion Device into Upper Vein, Percutaneous Approach                                                                                           | Procedure | ICD-10-PCS |
| 06HY33Z | Insertion of Infusion Device into Lower Vein, Percutaneous Approach                                                                                           | Procedure | ICD-10-PCS |
| 08923ZZ | Drainage of Right Anterior Chamber, Percutaneous Approach                                                                                                     | Procedure | ICD-10-PCS |
| 08933ZZ | Drainage of Left Anterior Chamber, Percutaneous Approach                                                                                                      | Procedure | ICD-10-PCS |
| 35686   | Creation of distal arteriovenous fistula during lower extremity bypass surgery (non-hemodialysis) (List separately in addition to code for primary procedure) | Procedure | CPT-4      |
| 35875   | Thrombectomy of arterial or venous graft (other than hemodialysis graft or fistula);                                                                          | Procedure | CPT-4      |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                   | Code      |           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                               | Category  | Code Type |
| 35876 | Thrombectomy of arterial or venous graft (other than hemodialysis graft or fistula); with revision of arterial or venous graft                                                                                                                                                                                                                                                                                                                | Procedure | CPT-4     |
| 36145 | Introduction of needle or intracatheter; arteriovenous shunt created for dialysis (cannula, fistula, or graft)                                                                                                                                                                                                                                                                                                                                | Procedure | CPT-4     |
| 36147 | Introduction of needle and/or catheter, arteriovenous shunt created for dialysis (graft/fistula); initial access with complete radiological evaluation of dialysis access, including fluoroscopy, image documentation and report (includes access of shunt, injection[s] of contrast, and all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava) | Procedure | CPT-4     |
| 36148 | Introduction of needle and/or catheter, arteriovenous shunt created for dialysis (graft/fistula); additional access for therapeutic intervention (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                  | Procedure | CPT-4     |
| 36488 | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, age 2 years or under                                                                                                                                                                                                                                             | Procedure | CPT-4     |
| 36489 | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, over age 2                                                                                                                                                                                                                                                       | Procedure | CPT-4     |
| 36490 | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, age 2 years or under                                                                                                                                                                                                                                                  | Procedure | CPT-4     |
| 36491 | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, over age 2                                                                                                                                                                                                                                                            | Procedure | CPT-4     |
| 36800 | Insertion of cannula for hemodialysis, other purpose (separate procedure); vein to vein                                                                                                                                                                                                                                                                                                                                                       | Procedure | CPT-4     |
| 36810 | Insertion of cannula for hemodialysis, other purpose (separate procedure); arteriovenous, external (Scribner type)                                                                                                                                                                                                                                                                                                                            | Procedure | CPT-4     |
| 36815 | Insertion of cannula for hemodialysis, other purpose (separate procedure); arteriovenous, external revision, or closure                                                                                                                                                                                                                                                                                                                       | Procedure | CPT-4     |
| 36818 | Arteriovenous anastomosis, open; by upper arm cephalic vein transposition                                                                                                                                                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 36819 | Arteriovenous anastomosis, open; by upper arm basilic vein transposition                                                                                                                                                                                                                                                                                                                                                                      | Procedure | CPT-4     |
| 36820 | Arteriovenous anastomosis, open; by forearm vein transposition                                                                                                                                                                                                                                                                                                                                                                                | Procedure | CPT-4     |
| 36821 | Arteriovenous anastomosis, open; direct, any site (eg, Cimino type) (separate procedure)                                                                                                                                                                                                                                                                                                                                                      | Procedure | CPT-4     |
| 36838 | Distal revascularization and interval ligation (DRIL), upper extremity hemodialysis access (steal syndrome)                                                                                                                                                                                                                                                                                                                                   | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Category  | Code Type |
| 36901 | Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report;                                                                                                                                                     | Procedure | CPT-4     |
| 36902 | Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary | Procedure | CPT-4     |
| 36903 | Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interp  | Procedure | CPT-4     |
| 36904 | Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic                                                                                                                                                                                                                                                                                                           | Procedure | CPT-4     |
| 36905 | Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s); with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty                                                                                                              | Procedure | CPT-4     |
| 36906 | Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s); with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the stenting, and all angioplasty within the peripheral dialysis                                            | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                                                                                                                                                                                                                              | Code      |            |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                                                                                                                                                                                                                          | Category  | Code Type  |
| 36907   | Transluminal balloon angioplasty, central dialysis segment, performed through dialysis circuit, including all imaging and radiological supervision and interpretation required to perform the angioplasty (List separately in addition to code for primary procedure)                                                                    | Procedure | CPT-4      |
| 36908   | Transcatheter placement of intravascular stent(s), central dialysis segment, performed through dialysis circuit, including all imaging and radiological supervision and interpretation required to perform the stenting, and all angioplasty in the central dialysis segment (List separately in addition to code for primary procedure) | Procedure | CPT-4      |
| 36909   | Dialysis circuit permanent vascular embolization or occlusion (including main circuit or any accessory veins), endovascular, including all imaging and radiological supervision and interpretation necessary to complete the intervention (List separately in addition to code for primary procedure)                                    | Procedure | CPT-4      |
| 38.95   | Venous catheterization for renal dialysis                                                                                                                                                                                                                                                                                                | Procedure | ICD-9-CM   |
| 39.27   | Arteriovenostomy for renal dialysis                                                                                                                                                                                                                                                                                                      | Procedure | ICD-9-CM   |
| 39.42   | Revision of arteriovenous shunt for renal dialysis                                                                                                                                                                                                                                                                                       | Procedure | ICD-9-CM   |
| 39.43   | Removal of arteriovenous shunt for renal dialysis                                                                                                                                                                                                                                                                                        | Procedure | ICD-9-CM   |
| 39.95   | Hemodialysis                                                                                                                                                                                                                                                                                                                             | Procedure | ICD-9-CM   |
| 3E1M39Z | Irrigation of Peritoneal Cavity using Dialysate, Percutaneous Approach                                                                                                                                                                                                                                                                   | Procedure | ICD-10-PCS |
| 4052F   | Hemodialysis via functioning arteriovenous (AV) fistula (ESRD)                                                                                                                                                                                                                                                                           | Procedure | CPT-2      |
| 4053F   | Hemodialysis via functioning arteriovenous (AV) graft (ESRD)                                                                                                                                                                                                                                                                             | Procedure | CPT-2      |
| 4054F   | Hemodialysis via catheter (ESRD)                                                                                                                                                                                                                                                                                                         | Procedure | CPT-2      |
| 4055F   | Patient receiving peritoneal dialysis (ESRD)                                                                                                                                                                                                                                                                                             | Procedure | CPT-2      |
| 49324   | Laparoscopy, surgical; with insertion of tunneled intraperitoneal catheter                                                                                                                                                                                                                                                               | Procedure | CPT-4      |
| 49325   | Laparoscopy, surgical; with revision of previously placed intraperitoneal cannula or catheter, with removal of intraluminal obstructive material if performed                                                                                                                                                                            | Procedure | CPT-4      |
| 49418   | Insertion of tunneled intraperitoneal catheter (eg, dialysis, intraperitoneal chemotherapy instillation, management of ascites), complete procedure, including imaging guidance, catheter placement, contrast injection when performed, and radiological supervision and interpretation, percutaneous                                    | Procedure | CPT-4      |
| 49419   | Insertion of tunneled intraperitoneal catheter, with subcutaneous port (ie, totally implantable)                                                                                                                                                                                                                                         | Procedure | CPT-4      |
| 49420   | Insertion of intraperitoneal cannula or catheter for drainage or dialysis; temporary                                                                                                                                                                                                                                                     | Procedure | CPT-4      |
| 49421   | Insertion of tunneled intraperitoneal catheter for dialysis, open                                                                                                                                                                                                                                                                        | Procedure | CPT-4      |
| 49422   | Removal of tunneled intraperitoneal catheter                                                                                                                                                                                                                                                                                             | Procedure | CPT-4      |
| 49435   | Insertion of subcutaneous extension to intraperitoneal cannula or catheter with remote chest exit site (List separately in addition to code for primary procedure)                                                                                                                                                                       | Procedure | CPT-4      |
| 54.98   | Peritoneal dialysis                                                                                                                                                                                                                                                                                                                      | Procedure | ICD-9-CM   |
| 5A1D70Z | Performance of Urinary Filtration, Intermittent, Less than 6 Hours Per Day                                                                                                                                                                                                                                                               | Procedure | ICD-10-PCS |
| 5A1D80Z | Performance of Urinary Filtration, Prolonged Intermittent, 6-18 hours Per Day                                                                                                                                                                                                                                                            | Procedure | ICD-10-PCS |
| 5A1D90Z | Performance of Urinary Filtration, Continuous, Greater than 18 hours Per Day                                                                                                                                                                                                                                                             | Procedure | ICD-10-PCS |
| 90935   | Hemodialysis procedure with single evaluation by a physician or other qualified health care professional                                                                                                                                                                                                                                 | Procedure | CPT-4      |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                    | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                | Category  | Code Type |
| 90937 | Hemodialysis procedure requiring repeated evaluation(s) with or without substantial revision of dialysis prescription                                                                                                                                                                          | Procedure | CPT-4     |
| 90939 | Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator dilution method, hook-up; transcutaneous measurement and disconnection                                                                                                             | Procedure | CPT-4     |
| 90940 | Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator method                                                                                                                                                                             | Procedure | CPT-4     |
| 90941 | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 90942 | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 90943 | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 90944 | Hemodialysis, For Acute Renal Failure And Or Intoxication,                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 90945 | Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single evaluation by a physician or other qualified health care professional                                                                       | Procedure | CPT-4     |
| 90947 | Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring repeated evaluations by a physician or other qualified health care professional, with or without substantial revision of dialysis prescription | Procedure | CPT-4     |
| 90963 | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents                                                | Procedure | CPT-4     |
| 90964 | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents                                                          | Procedure | CPT-4     |
| 90965 | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents                                                         | Procedure | CPT-4     |
| 90966 | End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 20 years of age and older                                                                                                                                                                       | Procedure | CPT-4     |
| 90967 | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients younger than 2 years of age                                                                                                                                              | Procedure | CPT-4     |
| 90968 | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 2-11 years of age                                                                                                                                                        | Procedure | CPT-4     |
| 90969 | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 12-19 years of age                                                                                                                                                       | Procedure | CPT-4     |
| 90970 | End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 20 years of age and older                                                                                                                                                | Procedure | CPT-4     |
| 90976 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure | CPT-4     |
| 90977 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure | CPT-4     |
| 90978 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure | CPT-4     |
| 90979 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure | CPT-4     |
| 90982 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure | CPT-4     |
| 90983 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                                                                                                                                                        | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                 | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                             | Category  | Code Type |
| 90984 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                     | Procedure | CPT-4     |
| 90985 | Peritoneal Dialysis For End-stage Renal Disease (esrd),                                                                                                     | Procedure | CPT-4     |
| 90988 | Supervision Of Hemodialysis In Hospital Or Other Facility (excluding Home Dialysis),<br>On Monthly Basis                                                    | Procedure | CPT-4     |
| 90989 | Dialysis training, patient, including helper where applicable, any mode, completed<br>course                                                                | Procedure | CPT-4     |
| 90990 | Hemodialysis Training And/or Counseling                                                                                                                     | Procedure | CPT-4     |
| 90991 | Home Hemodialysis Care, Outpatient, For Those Services Either Provided By The<br>Physician Primarily Responsible                                            | Procedure | CPT-4     |
| 90992 | Peritoneal Dialysis Training And/or Counseling                                                                                                              | Procedure | CPT-4     |
| 90993 | Dialysis training, patient, including helper where applicable, any mode, course not<br>completed, per training session                                      | Procedure | CPT-4     |
| 90994 | Supervision Of Chronic Ambulatory Peritoneal Dialysis (capd), Home Or Out-patient<br>(monthly)                                                              | Procedure | CPT-4     |
| 90997 | Hemoperfusion (eg, with activated charcoal or resin)                                                                                                        | Procedure | CPT-4     |
| 90999 | Unlisted dialysis procedure, inpatient or outpatient                                                                                                        | Procedure | CPT-4     |
| 93985 | Duplex scan of arterial inflow and venous outflow for preoperative vessel assessment<br>prior to creation of hemodialysis access; complete bilateral study  | Procedure | CPT-4     |
| 93986 | Duplex scan of arterial inflow and venous outflow for preoperative vessel assessment<br>prior to creation of hemodialysis access; complete unilateral study | Procedure | CPT-4     |
| 93990 | Duplex scan of hemodialysis access (including arterial inflow, body of access and<br>venous outflow)                                                        | Procedure | CPT-4     |
| 99512 | Home visit for hemodialysis                                                                                                                                 | Procedure | CPT-4     |
| 99559 | Home infusion of peritoneal dialysis, per visit                                                                                                             | Procedure | CPT-4     |
| A4653 | Peritoneal dialysis catheter anchoring device, belt, each                                                                                                   | Procedure | HCPCS     |
| A4655 | Needles and syringes for dialysis                                                                                                                           | Procedure | HCPCS     |
| A4671 | Disposable cyler set used with cyler dialysis machine, each                                                                                                 | Procedure | HCPCS     |
| A4672 | Drainage extension line, sterile, for dialysis, each                                                                                                        | Procedure | HCPCS     |
| A4673 | Extension line with easy lock connectors, used with dialysis                                                                                                | Procedure | HCPCS     |
| A4674 | Chemicals/antiseptics solution used to clean/sterilize dialysis equipment, per 8 oz                                                                         | Procedure | HCPCS     |
| A4680 | Activated carbon filter for hemodialysis, each                                                                                                              | Procedure | HCPCS     |
| A4690 | Dialyzer (artificial kidneys), all types, all sizes, for hemodialysis, each                                                                                 | Procedure | HCPCS     |
| A4706 | Bicarbonate concentrate, solution, for hemodialysis, per gallon                                                                                             | Procedure | HCPCS     |
| A4707 | Bicarbonate concentrate, powder, for hemodialysis, per packet                                                                                               | Procedure | HCPCS     |
| A4708 | Acetate concentrate solution, for hemodialysis, per gallon                                                                                                  | Procedure | HCPCS     |
| A4709 | Acid concentrate, solution, for hemodialysis, per gallon                                                                                                    | Procedure | HCPCS     |
| A4714 | Treated water (deionized, distilled, or reverse osmosis) for peritoneal dialysis, per<br>gallon                                                             | Procedure | HCPCS     |
| A4719 | "Y set" tubing for peritoneal dialysis                                                                                                                      | Procedure | HCPCS     |
| A4720 | Dialysate solution, any concentration of dextrose, fluid volume greater than 249 cc,<br>but less than or equal to 999 cc, for peritoneal dialysis           | Procedure | HCPCS     |
| A4721 | Dialysate solution, any concentration of dextrose, fluid volume greater than 999 cc<br>but less than or equal to 1999 cc, for peritoneal dialysis           | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                     | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                 | Category  | Code Type |
| A4722 | Dialysate solution, any concentration of dextrose, fluid volume greater than 1999 cc but less than or equal to 2999 cc, for peritoneal dialysis | Procedure | HCPCS     |
| A4723 | Dialysate solution, any concentration of dextrose, fluid volume greater than 2999 cc but less than or equal to 3999 cc, for peritoneal dialysis | Procedure | HCPCS     |
| A4724 | Dialysate solution, any concentration of dextrose, fluid volume greater than 3999 cc but less than or equal to 4999 cc, for peritoneal dialysis | Procedure | HCPCS     |
| A4725 | Dialysate solution, any concentration of dextrose, fluid volume greater than 4999 cc but less than or equal to 5999 cc, for peritoneal dialysis | Procedure | HCPCS     |
| A4726 | Dialysate solution, any concentration of dextrose, fluid volume greater than 5999 cc, for peritoneal dialysis                                   | Procedure | HCPCS     |
| A4728 | Dialysate solution, nondextrose containing, 500 ml                                                                                              | Procedure | HCPCS     |
| A4730 | Fistula cannulation set for hemodialysis, each                                                                                                  | Procedure | HCPCS     |
| A4735 | Local/topical anesthetics for dialysis only                                                                                                     | Procedure | HCPCS     |
| A4736 | Topical anesthetic, for dialysis, per g                                                                                                         | Procedure | HCPCS     |
| A4737 | Injectable anesthetic, for dialysis, per 10 ml                                                                                                  | Procedure | HCPCS     |
| A4740 | Shunt accessory, for hemodialysis, any type, each                                                                                               | Procedure | HCPCS     |
| A4750 | Blood tubing, arterial or venous, for hemodialysis, each                                                                                        | Procedure | HCPCS     |
| A4755 | Blood tubing, arterial and venous combined, for hemodialysis, each                                                                              | Procedure | HCPCS     |
| A4760 | Dialysate solution test kit, for peritoneal dialysis, any type, each                                                                            | Procedure | HCPCS     |
| A4765 | Dialysate concentrate, powder, additive for peritoneal dialysis, per packet                                                                     | Procedure | HCPCS     |
| A4766 | Dialysate concentrate, solution, additive for peritoneal dialysis, per 10 ml                                                                    | Procedure | HCPCS     |
| A4770 | Blood collection tube, vacuum, for dialysis, per 50                                                                                             | Procedure | HCPCS     |
| A4771 | Serum clotting time tube, for dialysis, per 50                                                                                                  | Procedure | HCPCS     |
| A4772 | Blood glucose test strips, for dialysis, per 50                                                                                                 | Procedure | HCPCS     |
| A4773 | Occult blood test strips, for dialysis, per 50                                                                                                  | Procedure | HCPCS     |
| A4774 | Ammonia test strips, for dialysis, per 50                                                                                                       | Procedure | HCPCS     |
| A4780 | Sterilizing agent for dialysis equipment, per gallon                                                                                            | Procedure | HCPCS     |
| A4790 | Cleansing agents for equipment for dialysis only                                                                                                | Procedure | HCPCS     |
| A4800 | Heparin for dialysis and antidote, any strength, porcine or beef, up to 1000 units, 10-30 ml (for parenteral use see b4216)                     | Procedure | HCPCS     |
| A4801 | Heparin, any type, for hemodialysis, per 1000 units                                                                                             | Procedure | HCPCS     |
| A4802 | Protamine sulfate, for hemodialysis, per 50 mg                                                                                                  | Procedure | HCPCS     |
| A4820 | Hemodialysis kit supplies                                                                                                                       | Procedure | HCPCS     |
| A4850 | Hemostats with rubber tips for dialysis                                                                                                         | Procedure | HCPCS     |
| A4860 | Disposable catheter tips for peritoneal dialysis, per 10                                                                                        | Procedure | HCPCS     |
| A4870 | Plumbing and/or electrical work for home hemodialysis equipment                                                                                 | Procedure | HCPCS     |
| A4880 | Storage tanks utilized in connection with water purification system, replacement tanks for dialysis                                             | Procedure | HCPCS     |
| A4890 | Contracts, repair and maintenance, for hemodialysis equipment                                                                                   | Procedure | HCPCS     |
| A4900 | Continuous ambulatory peritoneal dialysis (capd) supply kit                                                                                     | Procedure | HCPCS     |
| A4901 | Continuous cycling peritoneal dialysis (ccpd) supply kit                                                                                        | Procedure | HCPCS     |
| A4905 | Intermittent peritoneal dialysis (ipd) supply kit                                                                                               | Procedure | HCPCS     |
| A4910 | Non-medical supplies for dialysis, (i.e., scale, scissors, stopwatch, etc.)                                                                     | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Code      |            |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Category  | Code Type  |
| A4911   | Drain bag/bottle, for dialysis, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | HCPCS      |
| A4913   | Miscellaneous dialysis supplies, not otherwise specified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS      |
| A4918   | Venous pressure clamp, for hemodialysis, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS      |
| A4929   | Tourniquet for dialysis, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS      |
| B50W    | Plain Radiography / Dialysis Shunt/Fistula                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | ICD-10-PCS |
| B50W0ZZ | Plain Radiography of Dialysis Shunt/Fistula using High Osmolar Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure | ICD-10-PCS |
| B50W1ZZ | Plain Radiography of Dialysis Shunt/Fistula using Low Osmolar Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Procedure | ICD-10-PCS |
| B50WYZZ | Plain Radiography of Dialysis Shunt/Fistula using Other Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Procedure | ICD-10-PCS |
| B51W    | Fluoroscopy / Dialysis Shunt/Fistula                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | ICD-10-PCS |
| B51W0ZA | Fluoroscopy of Dialysis Shunt/Fistula using High Osmolar Contrast, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure | ICD-10-PCS |
| B51W0ZZ | Fluoroscopy of Dialysis Shunt/Fistula using High Osmolar Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Procedure | ICD-10-PCS |
| B51W1ZA | Fluoroscopy of Dialysis Shunt/Fistula using Low Osmolar Contrast, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | ICD-10-PCS |
| B51W1ZZ | Fluoroscopy of Dialysis Shunt/Fistula using Low Osmolar Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Procedure | ICD-10-PCS |
| B51WYZA | Fluoroscopy of Dialysis Shunt/Fistula using Other Contrast, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | ICD-10-PCS |
| B51WYZZ | Fluoroscopy of Dialysis Shunt/Fistula using Other Contrast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | ICD-10-PCS |
| B51WZZA | Fluoroscopy of Dialysis Shunt/Fistula, Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure | ICD-10-PCS |
| B51WZZZ | Fluoroscopy of Dialysis Shunt/Fistula                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure | ICD-10-PCS |
| C1037   | Catheter, vaxcel chronic dialysis catheter, medcomp bio flex tesio catheter, medcomp silicone tesio catheter, medcomp hemo-cath long term silicone catheter, bard niagara dual lumen catheter, bard opti-flow dual lumen catheter, medcomp ash split catheter                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS      |
| C1152   | Access system, dialysis, lifesite access system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS      |
| C1750   | Catheter, hemodialysis/peritoneal, long-term                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Procedure | HCPCS      |
| C1751   | Catheter, infusion, inserted peripherally, centrally or midline (other than hemodialysis)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Procedure | HCPCS      |
| C1752   | Catheter, hemodialysis/peritoneal, short-term                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS      |
| C1881   | Dialysis access system (implantable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | HCPCS      |
| C7513   | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with transluminal balloon angioplasty of central dialysis segment, performed through dialysis circuit, including all required imaging, radiological supervision and interpretation, image documentation and                       | Procedure | HCPCS      |
| C7514   | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with all angioplasty in the central dialysis segment, and transcatheter placement of intravascular stent(s), central dialysis segment, performed through dialysis circuit, including all required imaging, radiological supervisi | Procedure | HCPCS      |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Code      |           |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Category  | Code Type |
| C7515 | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with dialysis circuit permanent endovascular embolization or occlusion of main circuit or any accessory veins, including all required imaging, radiological supervision and interpretation, image documentation and report         | Procedure | HCPCS     |
| C7530 | Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty and all angioplasty in the central dialysis segment | Procedure | HCPCS     |
| E1500 | Centrifuge, for dialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| E1520 | Heparin infusion pump for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| E1530 | Air bubble detector for hemodialysis, each, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| E1540 | Pressure alarm for hemodialysis, each, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| E1550 | Bath conductivity meter for hemodialysis, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS     |
| E1560 | Blood leak detector for hemodialysis, each, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| E1575 | Transducer protectors/fluid barriers, for hemodialysis, any size, per 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| E1580 | Unipuncture control system for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| E1590 | Hemodialysis machine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| E1592 | Automatic intermittent peritoneal dialysis system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |
| E1594 | Cycler dialysis machine for peritoneal dialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| E1600 | Delivery and/or installation charges for hemodialysis equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| E1610 | Reverse osmosis water purification system, for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| E1615 | Deionizer water purification system, for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | HCPCS     |
| E1620 | Blood pump for hemodialysis, replacement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| E1625 | Water softening system, for hemodialysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| E1629 | Tablo hemodialysis system for the billable dialysis service                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| E1630 | Reciprocating peritoneal dialysis system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| E1634 | Peritoneal dialysis clamps, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| E1636 | Sorbent cartridges, for hemodialysis, per 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure | HCPCS     |
| E1638 | Heating pad, for peritoneal dialysis, any size, each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| E1640 | Replacement components for hemodialysis and/or peritoneal dialysis machines that are owned or being purchased by the patient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure | HCPCS     |
| E1699 | Dialysis equipment, not otherwise specified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| G0049 | With maintenance hemodialysis (in-center and home HD) for the complete reporting month                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| G0052 | Patients on peritoneal dialysis for any portion of the reporting month                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                         | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                     | Category  | Code Type |
| G0257 | Unscheduled or emergency dialysis treatment for an ESRD patient in a hospital outpatient department that is not certified as an ESRD facility                                                                                                                       | Procedure | HCPCS     |
| G0324 | ESRD related services for home dialysis (less than full month), per day; for patients under 2 years of age                                                                                                                                                          | Procedure | HCPCS     |
| G0325 | ESRD related services for home dialysis (less than full month), per day; for patients between 2 and 11 years of age                                                                                                                                                 | Procedure | HCPCS     |
| G0326 | ESRD related services for home dialysis (less than full month), per day; for patients between twelve and nineteen years of age                                                                                                                                      | Procedure | HCPCS     |
| G0365 | Vessel mapping of vessels for hemodialysis access (services for preoperative vessel mapping prior to creation of hemodialysis access using an autogenous hemodialysis conduit, including arterial inflow and venous outflow)                                        | Procedure | HCPCS     |
| G0392 | Transluminal balloon angioplasty, percutaneous; for maintenance of hemodialysis access, arteriovenous fistula or graft; arterial                                                                                                                                    | Procedure | HCPCS     |
| G0393 | Transluminal balloon angioplasty, percutaneous; for maintenance of hemodialysis access, arteriovenous fistula or graft; venous                                                                                                                                      | Procedure | HCPCS     |
| G0491 | Dialysis procedure at a Medicare certified ESRD facility for acute kidney injury without ESRD                                                                                                                                                                       | Procedure | HCPCS     |
| G0492 | Dialysis procedure with single evaluation by a physician or other qualified health care professional for acute kidney injury without ESRD                                                                                                                           | Procedure | HCPCS     |
| G1026 | The number of adult patient-months in the denominator who were on maintenance hemodialysis using a catheter continuously for 3 months or longer under the care of the same practitioner or group partner as of the last hemodialysis session of the reporting month | Procedure | HCPCS     |
| G1027 | The number of adult patient-months in the denominator who were on maintenance hemodialysis under the care of the same practitioner or group partner as of the last hemodialysis session of the reporting month using a catheter continuously for less than 3 months | Procedure | HCPCS     |
| G8075 | ESRD patient with documented dialysis dose of URR greater than or equal to 65% (or Kt/V greater than or equal to 1.2)                                                                                                                                               | Procedure | HCPCS     |
| G8076 | ESRD patient with documented dialysis dose of URR less than 65% (or Kt/V less than 1.2)                                                                                                                                                                             | Procedure | HCPCS     |
| G8081 | ESRD patient requiring hemodialysis vascular access documented to have received autogenous AV fistula                                                                                                                                                               | Procedure | HCPCS     |
| G8082 | ESRD patient requiring hemodialysis documented to have received vascular access other than autogenous AV fistula                                                                                                                                                    | Procedure | HCPCS     |
| G8085 | ESRD patient requiring hemodialysis vascular access was not an eligible candidate for autogenous AV fistula                                                                                                                                                         | Procedure | HCPCS     |
| G8575 | Developed postoperative renal failure or required dialysis                                                                                                                                                                                                          | Procedure | HCPCS     |
| G8576 | No postoperative renal failure/dialysis not required                                                                                                                                                                                                                | Procedure | HCPCS     |
| G8714 | Hemodialysis treatment performed exactly 3 times per week > 90 days                                                                                                                                                                                                 | Procedure | HCPCS     |
| G8715 | Hemodialysis treatment performed less than 3 times per week or greater than 3 times per week                                                                                                                                                                        | Procedure | HCPCS     |
| G8727 | Patient receiving hemodialysis, peritoneal dialysis or kidney transplantation                                                                                                                                                                                       | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                       | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                   | Category  | Code Type |
| G8956 | Patient receiving maintenance hemodialysis in an outpatient dialysis facility                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| G8957 | Patient not receiving maintenance hemodialysis in an outpatient dialysis facility                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| G9239 | Documentation of reasons for patient initiating maintenance hemodialysis with a catheter as the mode of vascular access (e.g., patient has a maturing arteriovenous fistula (AVF)/arteriovenous graft (AVG), time limited trial of hemodialysis, other medical reasons, patient declined AVF/AVG, other patient reasons, patient followed by reporting nephrologist for fewer than 90 days, other system reasons) | Procedure | HCPCS     |
| G9240 | Patient whose mode of vascular access is a catheter at the time maintenance hemodialysis is initiated                                                                                                                                                                                                                                                                                                             | Procedure | HCPCS     |
| G9241 | Patient whose mode of vascular access is not a catheter at the time maintenance hemodialysis is initiated                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| G9264 | Documentation of patient receiving maintenance hemodialysis for greater than or equal to 90 days with a catheter for documented reasons (e.g., other medical reasons, patient declined arteriovenous fistula (AVF)/arteriovenous graft (AVG), other patient reasons)                                                                                                                                              | Procedure | HCPCS     |
| G9265 | Patient receiving maintenance hemodialysis for greater than or equal to 90 days with a catheter as the mode of vascular access                                                                                                                                                                                                                                                                                    | Procedure | HCPCS     |
| G9266 | Patient receiving maintenance hemodialysis for greater than or equal to 90 days without a catheter as the mode of vascular access                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| G9523 | Patient discontinued from hemodialysis or peritoneal dialysis                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| G9747 | Patient is undergoing palliative dialysis with a catheter                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| G9749 | Patient is undergoing palliative dialysis with a catheter                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| J0604 | Cinacalcet, oral, 1 mg, (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                                    | Procedure | HCPCS     |
| J0879 | Injection, difelikefalin, 0.1 mcg, (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| J0882 | Injection, darbepoetin alfa, 1 mcg (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| J0884 | Injection, argatroban, 1 mg (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| J0886 | Injection, epoetin alfa, 1000 units (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |
| J0887 | Injection, epoetin beta, 1 mcg, (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                            | Procedure | HCPCS     |
| J0889 | Daprodustat, oral, 1 mg, (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| J0890 | Injection, peginesatide, 0.1 mg (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                                                                            | Procedure | HCPCS     |
| J0892 | Injection, argatroban (Accord), not therapeutically equivalent to J0884, 1 mg (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| J0899 | Injection, argatroban (AuroMedics), not therapeutically equivalent to J0884, 1 mg (for ESRD on dialysis)                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| J3591 | Unclassified drug or biological used for ESRD on dialysis                                                                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| K0610 | Peritoneal dialysis clamp, each                                                                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| K0611 | Disposable cyclor set used with cyclor dialysis machine, each                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| K0612 | Drainage extension line, sterile, for dialysis, each                                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| K0613 | Extension line with easy lock connectors, used with dialysis                                                                                                                                                                                                                                                                                                                                                      | Procedure | HCPCS     |
| K0614 | Chemicals/antiseptic solution used to clean/sterilize dialysis equipment, per 8 oz                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| M1262 | Patients who had a transplant prior to initiation of dialysis                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| M1263 | Patients in hospice on their initiation of dialysis date or during the month of evaluation                                                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code                                                                                                                            | Description                                                                                                                                                                                                  | Code      |           |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|                                                                                                                                 |                                                                                                                                                                                                              | Category  | Code Type |
| M1264                                                                                                                           | Patients age 75 or older on their initiation of dialysis date                                                                                                                                                | Procedure | HCPCS     |
| M1269                                                                                                                           | Receiving ESRD MCP dialysis services by the provider on the last day of the reporting month                                                                                                                  | Procedure | HCPCS     |
| M1273                                                                                                                           | Patients who were admitted to a skilled nursing facility (SNF) within 1 year of dialysis initiation according to the CMS-2728 Form                                                                           | Procedure | HCPCS     |
| Q0139                                                                                                                           | Injection, ferumoxytol, for treatment of iron deficiency anemia, 1 mg (for ESRD on dialysis)                                                                                                                 | Procedure | HCPCS     |
| Q2047                                                                                                                           | Injection, peginesatide, 0.1 mg (for ESRD on dialysis)                                                                                                                                                       | Procedure | HCPCS     |
| Q3023                                                                                                                           | Injection, hepatitis B vaccine, immunosuppressed patients (including renal dialysis patients), per dose                                                                                                      | Procedure | HCPCS     |
| Q4054                                                                                                                           | Injection, darbepoetin alfa, 1 mcg (for ESRD on dialysis)                                                                                                                                                    | Procedure | HCPCS     |
| Q4055                                                                                                                           | Injection, epoetin alfa, 1000 units (for ESRD on dialysis)                                                                                                                                                   | Procedure | HCPCS     |
| Q4081                                                                                                                           | Injection, epoetin alfa, 100 units (for ESRD on dialysis)                                                                                                                                                    | Procedure | HCPCS     |
| Q5105                                                                                                                           | Injection, epoetin alfa-epbx, biosimilar, (Retacrit) (for ESRD on dialysis), 100 units                                                                                                                       | Procedure | HCPCS     |
| Q9972                                                                                                                           | Injection, epoetin beta, 1 microgram, (for ESRD on dialysis)                                                                                                                                                 | Procedure | HCPCS     |
| S0194                                                                                                                           | Dialysis/stress vitamin supplement, oral, 100 capsules                                                                                                                                                       | Procedure | HCPCS     |
| S9335                                                                                                                           | Home therapy, hemodialysis; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing services coded separately), per diem     | Procedure | HCPCS     |
| S9339                                                                                                                           | Home therapy; peritoneal dialysis, administrative services, professional pharmacy services, care coordination and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem | Procedure | HCPCS     |
| <b>Insulin</b>                                                                                                                  |                                                                                                                                                                                                              |           |           |
| J1811                                                                                                                           | Insulin (Fiasp) for administration through DME (i.e., insulin pump) per 50 units                                                                                                                             | Procedure | HCPCS     |
| J1812                                                                                                                           | Insulin (Fiasp), per 5 units                                                                                                                                                                                 | Procedure | HCPCS     |
| J1813                                                                                                                           | Insulin (Lyumjev) for administration through DME (i.e., insulin pump) per 50 units                                                                                                                           | Procedure | HCPCS     |
| J1814                                                                                                                           | Insulin (Lyumjev), per 5 units                                                                                                                                                                               | Procedure | HCPCS     |
| J1815                                                                                                                           | Injection, insulin, per 5 units                                                                                                                                                                              | Procedure | HCPCS     |
| J1817                                                                                                                           | Insulin for insulin pump use                                                                                                                                                                                 | Procedure | HCPCS     |
| S5550                                                                                                                           | Insulin, rapid onset, 5 units                                                                                                                                                                                | Procedure | HCPCS     |
| S5551                                                                                                                           | Insulin, most rapid onset (Lispro or Aspart); 5 units                                                                                                                                                        | Procedure | HCPCS     |
| S5552                                                                                                                           | Insulin, intermediate acting (NPH or LENTE); 5 units                                                                                                                                                         | Procedure | HCPCS     |
| S5553                                                                                                                           | Insulin, long acting; 5 units                                                                                                                                                                                | Procedure | HCPCS     |
| S5560                                                                                                                           | Insulin delivery device, reusable pen; 1.5 ml size                                                                                                                                                           | Procedure | HCPCS     |
| S5561                                                                                                                           | Insulin delivery device, reusable pen; 3 ml size                                                                                                                                                             | Procedure | HCPCS     |
| S5565                                                                                                                           | Insulin cartridge for use in insulin delivery device other than pump; 150 units                                                                                                                              | Procedure | HCPCS     |
| S5566                                                                                                                           | Insulin cartridge for use in insulin delivery device other than pump; 300 units                                                                                                                              | Procedure | HCPCS     |
| S5570                                                                                                                           | Insulin delivery device, disposable pen (including insulin); 1.5 ml size                                                                                                                                     | Procedure | HCPCS     |
| S5571                                                                                                                           | Insulin delivery device, disposable pen (including insulin); 3 ml size                                                                                                                                       | Procedure | HCPCS     |
| <b>Other Non-Renal Cell Carcinoma (RCC) Malignancy (Excluding Non-Melanoma Skin Cancer), Chemotherapy, Surgery or Radiation</b> |                                                                                                                                                                                                              |           |           |
| 00.10                                                                                                                           | Implantation of chemotherapeutic agent                                                                                                                                                                       | Procedure | ICD-9-CM  |
| 00.15                                                                                                                           | High-dose infusion interleukin-2 [IL-2]                                                                                                                                                                      | Procedure | ICD-9-CM  |
| 00.18                                                                                                                           | Infusion of immunosuppressive antibody therapy                                                                                                                                                               | Procedure | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                 | Code Category | Code Type |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 0083U | Oncology, response to chemotherapy drugs using motility contrast tomography, fresh or frozen tissue, reported as likelihood of sensitivity or resistance to drugs or drug combinations                                                                                                                                      | Procedure     | CPT-4     |
| 0174U | Oncology (solid tumor), mass spectrometric 30 protein targets, formalin-fixed paraffin-embedded tissue, prognostic and predictive algorithm reported as likely, unlikely, or uncertain benefit of 39 chemotherapy and targeted therapeutic oncology                                                                         | Procedure     | CPT-4     |
| 0324U | Oncology (ovarian), spheroid cell culture, 4-drug panel (carboplatin, doxorubicin, gemcitabine, paclitaxel), tumor chemotherapy response prediction for each drug                                                                                                                                                           | Procedure     | CPT-4     |
| 0519F | Planned chemotherapy regimen, including at a minimum: drug(s) prescribed, dose, and duration, documented prior to initiation of a new treatment regimen (ONC)                                                                                                                                                               | Procedure     | CPT-2     |
| 0581T | Ablation, malignant breast tumor(s), percutaneous, cryotherapy, including imaging guidance when performed, unilateral                                                                                                                                                                                                       | Procedure     | CPT-3     |
| 0600T | Ablation, irreversible electroporation; 1 or more tumors per organ, including imaging guidance, when performed, percutaneous                                                                                                                                                                                                | Procedure     | CPT-3     |
| 0601T | Ablation, irreversible electroporation; 1 or more tumors, including fluoroscopic and ultrasound guidance, when performed, open                                                                                                                                                                                              | Procedure     | CPT-3     |
| 0708T | Intradermal cancer immunotherapy; preparation and initial injection                                                                                                                                                                                                                                                         | Procedure     | CPT-3     |
| 0709T | Intradermal cancer immunotherapy; each additional injection (List separately in addition to code for primary procedure)                                                                                                                                                                                                     | Procedure     | CPT-3     |
| 0735T | Preparation of tumor cavity, with placement of a radiation therapy applicator for intraoperative radiation therapy (IORT) concurrent with primary craniotomy (List separately in addition to code for primary procedure)                                                                                                    | Procedure     | CPT-3     |
| 0763T | Digitization of glass microscope slides for morphometric analysis, tumor immunohistochemistry (eg, Her-2/neu, estrogen receptor/progesterone receptor), quantitative or semiquantitative, per specimen, each single antibody stain procedure, manual (List separately in addition to code for primary procedure)            | Procedure     | CPT-3     |
| 0794T | Patient-specific, assistive, rules-based algorithm for ranking pharmaco-oncologic treatment options based on the patient's tumor-specific cancer marker information obtained from prior molecular pathology, immunohistochemical, or other pathology results which have been previously interpreted and reported separately | Procedure     | CPT-3     |
| 140   | Malignant neoplasm of lip                                                                                                                                                                                                                                                                                                   | Diagnosis     | ICD-9-CM  |
| 140.0 | Malignant neoplasm of upper lip, vermilion border                                                                                                                                                                                                                                                                           | Diagnosis     | ICD-9-CM  |
| 140.1 | Malignant neoplasm of lower lip, vermilion border                                                                                                                                                                                                                                                                           | Diagnosis     | ICD-9-CM  |
| 140.3 | Malignant neoplasm of upper lip, inner aspect                                                                                                                                                                                                                                                                               | Diagnosis     | ICD-9-CM  |
| 140.4 | Malignant neoplasm of lower lip, inner aspect                                                                                                                                                                                                                                                                               | Diagnosis     | ICD-9-CM  |
| 140.5 | Malignant neoplasm of lip, inner aspect, unspecified as to upper or lower                                                                                                                                                                                                                                                   | Diagnosis     | ICD-9-CM  |
| 140.6 | Malignant neoplasm of commissure of lip                                                                                                                                                                                                                                                                                     | Diagnosis     | ICD-9-CM  |
| 140.8 | Malignant neoplasm of other sites of lip                                                                                                                                                                                                                                                                                    | Diagnosis     | ICD-9-CM  |
| 140.9 | Malignant neoplasm of lip, vermilion border, unspecified as to upper or lower                                                                                                                                                                                                                                               | Diagnosis     | ICD-9-CM  |
| 141   | Malignant neoplasm of tongue                                                                                                                                                                                                                                                                                                | Diagnosis     | ICD-9-CM  |
| 141.0 | Malignant neoplasm of base of tongue                                                                                                                                                                                                                                                                                        | Diagnosis     | ICD-9-CM  |
| 141.1 | Malignant neoplasm of dorsal surface of tongue                                                                                                                                                                                                                                                                              | Diagnosis     | ICD-9-CM  |
| 141.2 | Malignant neoplasm of tip and lateral border of tongue                                                                                                                                                                                                                                                                      | Diagnosis     | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                           | Code      |           |
|-------|-----------------------------------------------------------------------|-----------|-----------|
|       |                                                                       | Category  | Code Type |
| 141.3 | Malignant neoplasm of ventral surface of tongue                       | Diagnosis | ICD-9-CM  |
| 141.4 | Malignant neoplasm of anterior two-thirds of tongue, part unspecified | Diagnosis | ICD-9-CM  |
| 141.5 | Malignant neoplasm of junctional zone of tongue                       | Diagnosis | ICD-9-CM  |
| 141.6 | Malignant neoplasm of lingual tonsil                                  | Diagnosis | ICD-9-CM  |
| 141.8 | Malignant neoplasm of other sites of tongue                           | Diagnosis | ICD-9-CM  |
| 141.9 | Malignant neoplasm of tongue, unspecified site                        | Diagnosis | ICD-9-CM  |
| 142   | Malignant neoplasm of major salivary glands                           | Diagnosis | ICD-9-CM  |
| 142.0 | Malignant neoplasm of parotid gland                                   | Diagnosis | ICD-9-CM  |
| 142.1 | Malignant neoplasm of submandibular gland                             | Diagnosis | ICD-9-CM  |
| 142.2 | Malignant neoplasm of sublingual gland                                | Diagnosis | ICD-9-CM  |
| 142.8 | Malignant neoplasm of other major salivary glands                     | Diagnosis | ICD-9-CM  |
| 142.9 | Malignant neoplasm of salivary gland, unspecified                     | Diagnosis | ICD-9-CM  |
| 143   | Malignant neoplasm of gum                                             | Diagnosis | ICD-9-CM  |
| 143.0 | Malignant neoplasm of upper gum                                       | Diagnosis | ICD-9-CM  |
| 143.1 | Malignant neoplasm of lower gum                                       | Diagnosis | ICD-9-CM  |
| 143.8 | Malignant neoplasm of other sites of gum                              | Diagnosis | ICD-9-CM  |
| 143.9 | Malignant neoplasm of gum, unspecified site                           | Diagnosis | ICD-9-CM  |
| 144   | Malignant neoplasm of floor of mouth                                  | Diagnosis | ICD-9-CM  |
| 144.0 | Malignant neoplasm of anterior portion of floor of mouth              | Diagnosis | ICD-9-CM  |
| 144.1 | Malignant neoplasm of lateral portion of floor of mouth               | Diagnosis | ICD-9-CM  |
| 144.8 | Malignant neoplasm of other sites of floor of mouth                   | Diagnosis | ICD-9-CM  |
| 144.9 | Malignant neoplasm of floor of mouth, part unspecified                | Diagnosis | ICD-9-CM  |
| 145   | Malignant neoplasm of other and unspecified parts of mouth            | Diagnosis | ICD-9-CM  |
| 145.0 | Malignant neoplasm of cheek mucosa                                    | Diagnosis | ICD-9-CM  |
| 145.1 | Malignant neoplasm of vestibule of mouth                              | Diagnosis | ICD-9-CM  |
| 145.2 | Malignant neoplasm of hard palate                                     | Diagnosis | ICD-9-CM  |
| 145.3 | Malignant neoplasm of soft palate                                     | Diagnosis | ICD-9-CM  |
| 145.4 | Malignant neoplasm of uvula                                           | Diagnosis | ICD-9-CM  |
| 145.5 | Malignant neoplasm of palate, unspecified                             | Diagnosis | ICD-9-CM  |
| 145.6 | Malignant neoplasm of retromolar area                                 | Diagnosis | ICD-9-CM  |
| 145.8 | Malignant neoplasm of other specified parts of mouth                  | Diagnosis | ICD-9-CM  |
| 145.9 | Malignant neoplasm of mouth, unspecified site                         | Diagnosis | ICD-9-CM  |
| 146   | Malignant neoplasm of oropharynx                                      | Diagnosis | ICD-9-CM  |
| 146.0 | Malignant neoplasm of tonsil                                          | Diagnosis | ICD-9-CM  |
| 146.1 | Malignant neoplasm of tonsillar fossa                                 | Diagnosis | ICD-9-CM  |
| 146.2 | Malignant neoplasm of tonsillar pillars (anterior) (posterior)        | Diagnosis | ICD-9-CM  |
| 146.3 | Malignant neoplasm of vallecula                                       | Diagnosis | ICD-9-CM  |
| 146.4 | Malignant neoplasm of anterior aspect of epiglottis                   | Diagnosis | ICD-9-CM  |
| 146.5 | Malignant neoplasm of junctional region of oropharynx                 | Diagnosis | ICD-9-CM  |
| 146.6 | Malignant neoplasm of lateral wall of oropharynx                      | Diagnosis | ICD-9-CM  |
| 146.7 | Malignant neoplasm of posterior wall of oropharynx                    | Diagnosis | ICD-9-CM  |
| 146.8 | Malignant neoplasm of other specified sites of oropharynx             | Diagnosis | ICD-9-CM  |
| 146.9 | Malignant neoplasm of oropharynx, unspecified site                    | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                | Code      |           |
|-------|--------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                            | Category  | Code Type |
| 147   | Malignant neoplasm of nasopharynx                                                          | Diagnosis | ICD-9-CM  |
| 147.0 | Malignant neoplasm of superior wall of nasopharynx                                         | Diagnosis | ICD-9-CM  |
| 147.1 | Malignant neoplasm of posterior wall of nasopharynx                                        | Diagnosis | ICD-9-CM  |
| 147.2 | Malignant neoplasm of lateral wall of nasopharynx                                          | Diagnosis | ICD-9-CM  |
| 147.3 | Malignant neoplasm of anterior wall of nasopharynx                                         | Diagnosis | ICD-9-CM  |
| 147.8 | Malignant neoplasm of other specified sites of nasopharynx                                 | Diagnosis | ICD-9-CM  |
| 147.9 | Malignant neoplasm of nasopharynx, unspecified site                                        | Diagnosis | ICD-9-CM  |
| 148   | Malignant neoplasm of hypopharynx                                                          | Diagnosis | ICD-9-CM  |
| 148.0 | Malignant neoplasm of postcricoid region of hypopharynx                                    | Diagnosis | ICD-9-CM  |
| 148.1 | Malignant neoplasm of pyriform sinus                                                       | Diagnosis | ICD-9-CM  |
| 148.2 | Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect                            | Diagnosis | ICD-9-CM  |
| 148.3 | Malignant neoplasm of posterior hypopharyngeal wall                                        | Diagnosis | ICD-9-CM  |
| 148.8 | Malignant neoplasm of other specified sites of hypopharynx                                 | Diagnosis | ICD-9-CM  |
| 148.9 | Malignant neoplasm of hypopharynx, unspecified site                                        | Diagnosis | ICD-9-CM  |
| 149   | Malignant neoplasm of other and ill-defined sites within the lip, oral cavity, and pharynx | Diagnosis | ICD-9-CM  |
| 149.0 | Malignant neoplasm of pharynx, unspecified                                                 | Diagnosis | ICD-9-CM  |
| 149.1 | Malignant neoplasm of Waldeyer's ring                                                      | Diagnosis | ICD-9-CM  |
| 149.8 | Malignant neoplasm of other sites within the lip and oral cavity                           | Diagnosis | ICD-9-CM  |
| 149.9 | Malignant neoplasm of ill-defined sites of lip and oral cavity                             | Diagnosis | ICD-9-CM  |
| 150   | Malignant neoplasm of esophagus                                                            | Diagnosis | ICD-9-CM  |
| 150.0 | Malignant neoplasm of cervical esophagus                                                   | Diagnosis | ICD-9-CM  |
| 150.1 | Malignant neoplasm of thoracic esophagus                                                   | Diagnosis | ICD-9-CM  |
| 150.2 | Malignant neoplasm of abdominal esophagus                                                  | Diagnosis | ICD-9-CM  |
| 150.3 | Malignant neoplasm of upper third of esophagus                                             | Diagnosis | ICD-9-CM  |
| 150.4 | Malignant neoplasm of middle third of esophagus                                            | Diagnosis | ICD-9-CM  |
| 150.5 | Malignant neoplasm of lower third of esophagus                                             | Diagnosis | ICD-9-CM  |
| 150.8 | Malignant neoplasm of other specified part of esophagus                                    | Diagnosis | ICD-9-CM  |
| 150.9 | Malignant neoplasm of esophagus, unspecified site                                          | Diagnosis | ICD-9-CM  |
| 151   | Malignant neoplasm of stomach                                                              | Diagnosis | ICD-9-CM  |
| 151.0 | Malignant neoplasm of cardia                                                               | Diagnosis | ICD-9-CM  |
| 151.1 | Malignant neoplasm of pylorus                                                              | Diagnosis | ICD-9-CM  |
| 151.2 | Malignant neoplasm of pyloric antrum                                                       | Diagnosis | ICD-9-CM  |
| 151.3 | Malignant neoplasm of fundus of stomach                                                    | Diagnosis | ICD-9-CM  |
| 151.4 | Malignant neoplasm of body of stomach                                                      | Diagnosis | ICD-9-CM  |
| 151.5 | Malignant neoplasm of lesser curvature of stomach, unspecified                             | Diagnosis | ICD-9-CM  |
| 151.6 | Malignant neoplasm of greater curvature of stomach, unspecified                            | Diagnosis | ICD-9-CM  |
| 151.8 | Malignant neoplasm of other specified sites of stomach                                     | Diagnosis | ICD-9-CM  |
| 151.9 | Malignant neoplasm of stomach, unspecified site                                            | Diagnosis | ICD-9-CM  |
| 152   | Malignant neoplasm of small intestine, including duodenum                                  | Diagnosis | ICD-9-CM  |
| 152.0 | Malignant neoplasm of duodenum                                                             | Diagnosis | ICD-9-CM  |
| 152.1 | Malignant neoplasm of jejunum                                                              | Diagnosis | ICD-9-CM  |
| 152.2 | Malignant neoplasm of ileum                                                                | Diagnosis | ICD-9-CM  |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                            | Code      |           |
|-------|----------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                        | Category  | Code Type |
| 152.3 | Malignant neoplasm of Meckel's diverticulum                                            | Diagnosis | ICD-9-CM  |
| 152.8 | Malignant neoplasm of other specified sites of small intestine                         | Diagnosis | ICD-9-CM  |
| 152.9 | Malignant neoplasm of small intestine, unspecified site                                | Diagnosis | ICD-9-CM  |
| 153   | Malignant neoplasm of colon                                                            | Diagnosis | ICD-9-CM  |
| 153.0 | Malignant neoplasm of hepatic flexure                                                  | Diagnosis | ICD-9-CM  |
| 153.1 | Malignant neoplasm of transverse colon                                                 | Diagnosis | ICD-9-CM  |
| 153.2 | Malignant neoplasm of descending colon                                                 | Diagnosis | ICD-9-CM  |
| 153.3 | Malignant neoplasm of sigmoid colon                                                    | Diagnosis | ICD-9-CM  |
| 153.4 | Malignant neoplasm of cecum                                                            | Diagnosis | ICD-9-CM  |
| 153.5 | Malignant neoplasm of appendix                                                         | Diagnosis | ICD-9-CM  |
| 153.6 | Malignant neoplasm of ascending colon                                                  | Diagnosis | ICD-9-CM  |
| 153.7 | Malignant neoplasm of splenic flexure                                                  | Diagnosis | ICD-9-CM  |
| 153.8 | Malignant neoplasm of other specified sites of large intestine                         | Diagnosis | ICD-9-CM  |
| 153.9 | Malignant neoplasm of colon, unspecified site                                          | Diagnosis | ICD-9-CM  |
| 154   | Malignant neoplasm of rectum, rectosigmoid junction, and anus                          | Diagnosis | ICD-9-CM  |
| 154.0 | Malignant neoplasm of rectosigmoid junction                                            | Diagnosis | ICD-9-CM  |
| 154.1 | Malignant neoplasm of rectum                                                           | Diagnosis | ICD-9-CM  |
| 154.2 | Malignant neoplasm of anal canal                                                       | Diagnosis | ICD-9-CM  |
| 154.3 | Malignant neoplasm of anus, unspecified site                                           | Diagnosis | ICD-9-CM  |
| 154.8 | Malignant neoplasm of other sites of rectum, rectosigmoid junction, and anus           | Diagnosis | ICD-9-CM  |
| 155   | Malignant neoplasm of liver and intrahepatic bile ducts                                | Diagnosis | ICD-9-CM  |
| 155.0 | Malignant neoplasm of liver, primary                                                   | Diagnosis | ICD-9-CM  |
| 155.1 | Malignant neoplasm of intrahepatic bile ducts                                          | Diagnosis | ICD-9-CM  |
| 155.2 | Malignant neoplasm of liver, not specified as primary or secondary                     | Diagnosis | ICD-9-CM  |
| 156   | Malignant neoplasm of gallbladder and extrahepatic bile ducts                          | Diagnosis | ICD-9-CM  |
| 156.0 | Malignant neoplasm of gallbladder                                                      | Diagnosis | ICD-9-CM  |
| 156.1 | Malignant neoplasm of extrahepatic bile ducts                                          | Diagnosis | ICD-9-CM  |
| 156.2 | Malignant neoplasm of ampulla of Vater                                                 | Diagnosis | ICD-9-CM  |
| 156.8 | Malignant neoplasm of other specified sites of gallbladder and extrahepatic bile ducts | Diagnosis | ICD-9-CM  |
| 156.9 | Malignant neoplasm of biliary tract, part unspecified site                             | Diagnosis | ICD-9-CM  |
| 157   | Malignant neoplasm of pancreas                                                         | Diagnosis | ICD-9-CM  |
| 157.0 | Malignant neoplasm of head of pancreas                                                 | Diagnosis | ICD-9-CM  |
| 157.1 | Malignant neoplasm of body of pancreas                                                 | Diagnosis | ICD-9-CM  |
| 157.2 | Malignant neoplasm of tail of pancreas                                                 | Diagnosis | ICD-9-CM  |
| 157.3 | Malignant neoplasm of pancreatic duct                                                  | Diagnosis | ICD-9-CM  |
| 157.4 | Malignant neoplasm of islets of Langerhans                                             | Diagnosis | ICD-9-CM  |
| 157.8 | Malignant neoplasm of other specified sites of pancreas                                | Diagnosis | ICD-9-CM  |
| 157.9 | Malignant neoplasm of pancreas, part unspecified                                       | Diagnosis | ICD-9-CM  |
| 158   | Malignant neoplasm of retroperitoneum and peritoneum                                   | Diagnosis | ICD-9-CM  |
| 158.0 | Malignant neoplasm of retroperitoneum                                                  | Diagnosis | ICD-9-CM  |
| 158.8 | Malignant neoplasm of specified parts of peritoneum                                    | Diagnosis | ICD-9-CM  |
| 158.9 | Malignant neoplasm of peritoneum, unspecified                                          | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                     | Code      |           |
|-------|-------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                 | Category  | Code Type |
| 159   | Malignant neoplasm of other and ill-defined sites within the digestive organs and peritoneum    | Diagnosis | ICD-9-CM  |
| 159.0 | Malignant neoplasm of intestinal tract, part unspecified                                        | Diagnosis | ICD-9-CM  |
| 159.1 | Malignant neoplasm of spleen, not elsewhere classified                                          | Diagnosis | ICD-9-CM  |
| 159.8 | Malignant neoplasm of other sites of digestive system and intra-abdominal organs                | Diagnosis | ICD-9-CM  |
| 159.9 | Malignant neoplasm of ill-defined sites of digestive organs and peritoneum                      | Diagnosis | ICD-9-CM  |
| 160   | Malignant neoplasm of nasal cavities, middle ear, and accessory sinuses                         | Diagnosis | ICD-9-CM  |
| 160.0 | Malignant neoplasm of nasal cavities                                                            | Diagnosis | ICD-9-CM  |
| 160.1 | Malignant neoplasm of auditory tube, middle ear, and mastoid air cells                          | Diagnosis | ICD-9-CM  |
| 160.2 | Malignant neoplasm of maxillary sinus                                                           | Diagnosis | ICD-9-CM  |
| 160.3 | Malignant neoplasm of ethmoidal sinus                                                           | Diagnosis | ICD-9-CM  |
| 160.4 | Malignant neoplasm of frontal sinus                                                             | Diagnosis | ICD-9-CM  |
| 160.5 | Malignant neoplasm of sphenoidal sinus                                                          | Diagnosis | ICD-9-CM  |
| 160.8 | Malignant neoplasm of other sites of nasal cavities, middle ear, and accessory sinuses          | Diagnosis | ICD-9-CM  |
| 160.9 | Malignant neoplasm of site of nasal cavities, middle ear, and accessory sinus, unspecified site | Diagnosis | ICD-9-CM  |
| 161   | Malignant neoplasm of larynx                                                                    | Diagnosis | ICD-9-CM  |
| 161.0 | Malignant neoplasm of glottis                                                                   | Diagnosis | ICD-9-CM  |
| 161.1 | Malignant neoplasm of supraglottis                                                              | Diagnosis | ICD-9-CM  |
| 161.2 | Malignant neoplasm of subglottis                                                                | Diagnosis | ICD-9-CM  |
| 161.3 | Malignant neoplasm of laryngeal cartilages                                                      | Diagnosis | ICD-9-CM  |
| 161.8 | Malignant neoplasm of other specified sites of larynx                                           | Diagnosis | ICD-9-CM  |
| 161.9 | Malignant neoplasm of larynx, unspecified site                                                  | Diagnosis | ICD-9-CM  |
| 162   | Malignant neoplasm of trachea, bronchus, and lung                                               | Diagnosis | ICD-9-CM  |
| 162.0 | Malignant neoplasm of trachea                                                                   | Diagnosis | ICD-9-CM  |
| 162.2 | Malignant neoplasm of main bronchus                                                             | Diagnosis | ICD-9-CM  |
| 162.3 | Malignant neoplasm of upper lobe, bronchus, or lung                                             | Diagnosis | ICD-9-CM  |
| 162.4 | Malignant neoplasm of middle lobe, bronchus, or lung                                            | Diagnosis | ICD-9-CM  |
| 162.5 | Malignant neoplasm of lower lobe, bronchus, or lung                                             | Diagnosis | ICD-9-CM  |
| 162.8 | Malignant neoplasm of other parts of bronchus or lung                                           | Diagnosis | ICD-9-CM  |
| 162.9 | Malignant neoplasm of bronchus and lung, unspecified site                                       | Diagnosis | ICD-9-CM  |
| 163   | Malignant neoplasm of pleura                                                                    | Diagnosis | ICD-9-CM  |
| 163.0 | Malignant neoplasm of parietal pleura                                                           | Diagnosis | ICD-9-CM  |
| 163.1 | Malignant neoplasm of visceral pleura                                                           | Diagnosis | ICD-9-CM  |
| 163.8 | Malignant neoplasm of other specified sites of pleura                                           | Diagnosis | ICD-9-CM  |
| 163.9 | Malignant neoplasm of pleura, unspecified site                                                  | Diagnosis | ICD-9-CM  |
| 164   | Malignant neoplasm of thymus, heart, and mediastinum                                            | Diagnosis | ICD-9-CM  |
| 164.0 | Malignant neoplasm of thymus                                                                    | Diagnosis | ICD-9-CM  |
| 164.1 | Malignant neoplasm of heart                                                                     | Diagnosis | ICD-9-CM  |
| 164.2 | Malignant neoplasm of anterior mediastinum                                                      | Diagnosis | ICD-9-CM  |
| 164.3 | Malignant neoplasm of posterior mediastinum                                                     | Diagnosis | ICD-9-CM  |
| 164.8 | Malignant neoplasm of other parts of mediastinum                                                | Diagnosis | ICD-9-CM  |
| 164.9 | Malignant neoplasm of mediastinum, part unspecified                                             | Diagnosis | ICD-9-CM  |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                        | Code      |           |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                    | Category  | Code Type |
| 165   | Malignant neoplasm of other and ill-defined sites within the respiratory system and intrathoracic organs                                           | Diagnosis | ICD-9-CM  |
| 165.0 | Malignant neoplasm of upper respiratory tract, part unspecified                                                                                    | Diagnosis | ICD-9-CM  |
| 165.8 | Malignant neoplasm of other sites within the respiratory system and intrathoracic organs                                                           | Diagnosis | ICD-9-CM  |
| 165.9 | Malignant neoplasm of ill-defined sites within the respiratory system                                                                              | Diagnosis | ICD-9-CM  |
| 17.70 | Intravenous infusion of clofarabine                                                                                                                | Procedure | ICD-9-CM  |
| 170   | Malignant neoplasm of bone and articular cartilage                                                                                                 | Diagnosis | ICD-9-CM  |
| 170.0 | Malignant neoplasm of bones of skull and face, except mandible                                                                                     | Diagnosis | ICD-9-CM  |
| 170.1 | Malignant neoplasm of mandible                                                                                                                     | Diagnosis | ICD-9-CM  |
| 170.2 | Malignant neoplasm of vertebral column, excluding sacrum and coccyx                                                                                | Diagnosis | ICD-9-CM  |
| 170.3 | Malignant neoplasm of ribs, sternum, and clavicle                                                                                                  | Diagnosis | ICD-9-CM  |
| 170.4 | Malignant neoplasm of scapula and long bones of upper limb                                                                                         | Diagnosis | ICD-9-CM  |
| 170.5 | Malignant neoplasm of short bones of upper limb                                                                                                    | Diagnosis | ICD-9-CM  |
| 170.6 | Malignant neoplasm of pelvic bones, sacrum, and coccyx                                                                                             | Diagnosis | ICD-9-CM  |
| 170.7 | Malignant neoplasm of long bones of lower limb                                                                                                     | Diagnosis | ICD-9-CM  |
| 170.8 | Malignant neoplasm of short bones of lower limb                                                                                                    | Diagnosis | ICD-9-CM  |
| 170.9 | Malignant neoplasm of bone and articular cartilage, site unspecified                                                                               | Diagnosis | ICD-9-CM  |
| 171   | Malignant neoplasm of connective and other soft tissue                                                                                             | Diagnosis | ICD-9-CM  |
| 171.0 | Malignant neoplasm of connective and other soft tissue of head, face, and neck                                                                     | Diagnosis | ICD-9-CM  |
| 171.2 | Malignant neoplasm of connective and other soft tissue of upper limb, including shoulder                                                           | Diagnosis | ICD-9-CM  |
| 171.3 | Malignant neoplasm of connective and other soft tissue of lower limb, including hip                                                                | Diagnosis | ICD-9-CM  |
| 171.4 | Malignant neoplasm of connective and other soft tissue of thorax                                                                                   | Diagnosis | ICD-9-CM  |
| 171.5 | Malignant neoplasm of connective and other soft tissue of abdomen                                                                                  | Diagnosis | ICD-9-CM  |
| 171.6 | Malignant neoplasm of connective and other soft tissue of pelvis                                                                                   | Diagnosis | ICD-9-CM  |
| 171.7 | Malignant neoplasm of connective and other soft tissue of trunk, unspecified site                                                                  | Diagnosis | ICD-9-CM  |
| 171.8 | Malignant neoplasm of other specified sites of connective and other soft tissue                                                                    | Diagnosis | ICD-9-CM  |
| 171.9 | Malignant neoplasm of connective and other soft tissue, site unspecified                                                                           | Diagnosis | ICD-9-CM  |
| 172   | Malignant melanoma of skin                                                                                                                         | Diagnosis | ICD-9-CM  |
| 172.0 | Malignant melanoma of skin of lip                                                                                                                  | Diagnosis | ICD-9-CM  |
| 172.1 | Malignant melanoma of skin of eyelid, including canthus                                                                                            | Diagnosis | ICD-9-CM  |
| 172.2 | Malignant melanoma of skin of ear and external auditory canal                                                                                      | Diagnosis | ICD-9-CM  |
| 172.3 | Malignant melanoma of skin of other and unspecified parts of face                                                                                  | Diagnosis | ICD-9-CM  |
| 172.4 | Malignant melanoma of skin of scalp and neck                                                                                                       | Diagnosis | ICD-9-CM  |
| 172.5 | Malignant melanoma of skin of trunk, except scrotum                                                                                                | Diagnosis | ICD-9-CM  |
| 172.6 | Malignant melanoma of skin of upper limb, including shoulder                                                                                       | Diagnosis | ICD-9-CM  |
| 172.7 | Malignant melanoma of skin of lower limb, including hip                                                                                            | Diagnosis | ICD-9-CM  |
| 172.8 | Malignant melanoma of other specified sites of skin                                                                                                | Diagnosis | ICD-9-CM  |
| 172.9 | Melanoma of skin, site unspecified                                                                                                                 | Diagnosis | ICD-9-CM  |
| 17303 | Chemosurgery (mohs' Micrographic Technique), First Stage, Fixed Tissue Technique, Including Removal Of All Gross Tumor And Application Of Fixative | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Category  | Code Type |
| 17304 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); first stage, fresh tissue technique, up to 5 specimens                                                                                                                                                                                         | Procedure | CPT-4     |
| 17305 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); second stage, fixed or fresh tissue, up to 5 specimens                                                                                                                                                                                         | Procedure | CPT-4     |
| 17306 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); third stage, fixed or fresh tissue, up to 5 specimens                                                                                                                                                                                          | Procedure | CPT-4     |
| 17307 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); additional stage(s), up to 5 specimens, each stage                                                                                                                                                                                             | Procedure | CPT-4     |
| 17310 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); each additional specimen, after the first 5 specimens, fixed or fresh tissue, any stage (List separately in addition to code for primary procedure)                                                                                            | Procedure | CPT-4     |
| 17311 | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), head, neck, hands, feet, genitalia, or any location with surgery directly involving muscle, cartilage, bone, tendon, major nerves, or vessels; first stage, up to 5 tissue blocks                                                                                             | Procedure | CPT-4     |
| 17312 | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), head, neck, hands, feet, genitalia, or any location with surgery directly involving muscle, cartilage, bone, tendon, major nerves, or vessels; each additional stage after the first stage, up to 5 tissue blocks (List separately in addition to code for primary procedure) | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Category  | Code Type |
| 17313 | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), of the trunk, arms, or legs; first stage, up to 5 tissue blocks                                                                                             | Procedure | CPT-4     |
| 17314 | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), of the trunk, arms, or legs; each additional stage after the first stage, up to 5 tissue blocks (List separately in addition to code for primary procedure) | Procedure | CPT-4     |
| 17315 | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), each additional block after the first 5 tissue blocks, any stage (List separately in addition to code for primary procedure)                                | Procedure | CPT-4     |
| 174   | Malignant neoplasm of female breast                                                                                                                                                                                                                                                                                                                                                                                                                                    | Diagnosis | ICD-9-CM  |
| 174.0 | Malignant neoplasm of nipple and areola of female breast                                                                                                                                                                                                                                                                                                                                                                                                               | Diagnosis | ICD-9-CM  |
| 174.1 | Malignant neoplasm of central portion of female breast                                                                                                                                                                                                                                                                                                                                                                                                                 | Diagnosis | ICD-9-CM  |
| 174.2 | Malignant neoplasm of upper-inner quadrant of female breast                                                                                                                                                                                                                                                                                                                                                                                                            | Diagnosis | ICD-9-CM  |
| 174.3 | Malignant neoplasm of lower-inner quadrant of female breast                                                                                                                                                                                                                                                                                                                                                                                                            | Diagnosis | ICD-9-CM  |
| 174.4 | Malignant neoplasm of upper-outer quadrant of female breast                                                                                                                                                                                                                                                                                                                                                                                                            | Diagnosis | ICD-9-CM  |
| 174.5 | Malignant neoplasm of lower-outer quadrant of female breast                                                                                                                                                                                                                                                                                                                                                                                                            | Diagnosis | ICD-9-CM  |
| 174.6 | Malignant neoplasm of axillary tail of female breast                                                                                                                                                                                                                                                                                                                                                                                                                   | Diagnosis | ICD-9-CM  |
| 174.8 | Malignant neoplasm of other specified sites of female breast                                                                                                                                                                                                                                                                                                                                                                                                           | Diagnosis | ICD-9-CM  |
| 174.9 | Malignant neoplasm of breast (female), unspecified site                                                                                                                                                                                                                                                                                                                                                                                                                | Diagnosis | ICD-9-CM  |
| 175   | Malignant neoplasm of male breast                                                                                                                                                                                                                                                                                                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| 175.0 | Malignant neoplasm of nipple and areola of male breast                                                                                                                                                                                                                                                                                                                                                                                                                 | Diagnosis | ICD-9-CM  |
| 175.9 | Malignant neoplasm of other and unspecified sites of male breast                                                                                                                                                                                                                                                                                                                                                                                                       | Diagnosis | ICD-9-CM  |
| 176   | Kaposi's sarcoma                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Diagnosis | ICD-9-CM  |
| 176.0 | Kaposi's sarcoma of skin                                                                                                                                                                                                                                                                                                                                                                                                                                               | Diagnosis | ICD-9-CM  |
| 176.1 | Kaposi's sarcoma of soft tissue                                                                                                                                                                                                                                                                                                                                                                                                                                        | Diagnosis | ICD-9-CM  |
| 176.2 | Kaposi's sarcoma of palate                                                                                                                                                                                                                                                                                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| 176.3 | Kaposi's sarcoma of gastrointestinal sites                                                                                                                                                                                                                                                                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| 176.4 | Kaposi's sarcoma of lung                                                                                                                                                                                                                                                                                                                                                                                                                                               | Diagnosis | ICD-9-CM  |
| 176.5 | Kaposi's sarcoma of lymph nodes                                                                                                                                                                                                                                                                                                                                                                                                                                        | Diagnosis | ICD-9-CM  |
| 176.8 | Kaposi's sarcoma of other specified sites                                                                                                                                                                                                                                                                                                                                                                                                                              | Diagnosis | ICD-9-CM  |
| 176.9 | Kaposi's sarcoma of unspecified site                                                                                                                                                                                                                                                                                                                                                                                                                                   | Diagnosis | ICD-9-CM  |
| 179   | Malignant neoplasm of uterus, part unspecified                                                                                                                                                                                                                                                                                                                                                                                                                         | Diagnosis | ICD-9-CM  |
| 180   | Malignant neoplasm of cervix uteri                                                                                                                                                                                                                                                                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| 180.0 | Malignant neoplasm of endocervix                                                                                                                                                                                                                                                                                                                                                                                                                                       | Diagnosis | ICD-9-CM  |
| 180.1 | Malignant neoplasm of exocervix                                                                                                                                                                                                                                                                                                                                                                                                                                        | Diagnosis | ICD-9-CM  |
| 180.8 | Malignant neoplasm of other specified sites of cervix                                                                                                                                                                                                                                                                                                                                                                                                                  | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                          | Code      |           |
|-------|----------------------------------------------------------------------|-----------|-----------|
|       |                                                                      | Category  | Code Type |
| 180.9 | Malignant neoplasm of cervix uteri, unspecified site                 | Diagnosis | ICD-9-CM  |
| 181   | Malignant neoplasm of placenta                                       | Diagnosis | ICD-9-CM  |
| 182   | Malignant neoplasm of body of uterus                                 | Diagnosis | ICD-9-CM  |
| 182.0 | Malignant neoplasm of corpus uteri, except isthmus                   | Diagnosis | ICD-9-CM  |
| 182.1 | Malignant neoplasm of isthmus                                        | Diagnosis | ICD-9-CM  |
| 182.8 | Malignant neoplasm of other specified sites of body of uterus        | Diagnosis | ICD-9-CM  |
| 183   | Malignant neoplasm of ovary and other uterine adnexa                 | Diagnosis | ICD-9-CM  |
| 183.0 | Malignant neoplasm of ovary                                          | Diagnosis | ICD-9-CM  |
| 183.2 | Malignant neoplasm of fallopian tube                                 | Diagnosis | ICD-9-CM  |
| 183.3 | Malignant neoplasm of broad ligament of uterus                       | Diagnosis | ICD-9-CM  |
| 183.4 | Malignant neoplasm of parametrium of uterus                          | Diagnosis | ICD-9-CM  |
| 183.5 | Malignant neoplasm of round ligament of uterus                       | Diagnosis | ICD-9-CM  |
| 183.8 | Malignant neoplasm of other specified sites of uterine adnexa        | Diagnosis | ICD-9-CM  |
| 183.9 | Malignant neoplasm of uterine adnexa, unspecified site               | Diagnosis | ICD-9-CM  |
| 184   | Malignant neoplasm of other and unspecified female genital organs    | Diagnosis | ICD-9-CM  |
| 184.0 | Malignant neoplasm of vagina                                         | Diagnosis | ICD-9-CM  |
| 184.1 | Malignant neoplasm of labia majora                                   | Diagnosis | ICD-9-CM  |
| 184.2 | Malignant neoplasm of labia minora                                   | Diagnosis | ICD-9-CM  |
| 184.3 | Malignant neoplasm of clitoris                                       | Diagnosis | ICD-9-CM  |
| 184.4 | Malignant neoplasm of vulva, unspecified site                        | Diagnosis | ICD-9-CM  |
| 184.8 | Malignant neoplasm of other specified sites of female genital organs | Diagnosis | ICD-9-CM  |
| 184.9 | Malignant neoplasm of female genital organ, site unspecified         | Diagnosis | ICD-9-CM  |
| 185   | Malignant neoplasm of prostate                                       | Diagnosis | ICD-9-CM  |
| 186   | Malignant neoplasm of testis                                         | Diagnosis | ICD-9-CM  |
| 186.0 | Malignant neoplasm of undescended testis                             | Diagnosis | ICD-9-CM  |
| 186.9 | Malignant neoplasm of other and unspecified testis                   | Diagnosis | ICD-9-CM  |
| 187   | Malignant neoplasm of penis and other male genital organs            | Diagnosis | ICD-9-CM  |
| 187.1 | Malignant neoplasm of prepuce                                        | Diagnosis | ICD-9-CM  |
| 187.2 | Malignant neoplasm of glans penis                                    | Diagnosis | ICD-9-CM  |
| 187.3 | Malignant neoplasm of body of penis                                  | Diagnosis | ICD-9-CM  |
| 187.4 | Malignant neoplasm of penis, part unspecified                        | Diagnosis | ICD-9-CM  |
| 187.5 | Malignant neoplasm of epididymis                                     | Diagnosis | ICD-9-CM  |
| 187.6 | Malignant neoplasm of spermatic cord                                 | Diagnosis | ICD-9-CM  |
| 187.7 | Malignant neoplasm of scrotum                                        | Diagnosis | ICD-9-CM  |
| 187.8 | Malignant neoplasm of other specified sites of male genital organs   | Diagnosis | ICD-9-CM  |
| 187.9 | Malignant neoplasm of male genital organ, site unspecified           | Diagnosis | ICD-9-CM  |
| 188   | Malignant neoplasm of bladder                                        | Diagnosis | ICD-9-CM  |
| 188.0 | Malignant neoplasm of trigone of urinary bladder                     | Diagnosis | ICD-9-CM  |
| 188.1 | Malignant neoplasm of dome of urinary bladder                        | Diagnosis | ICD-9-CM  |
| 188.2 | Malignant neoplasm of lateral wall of urinary bladder                | Diagnosis | ICD-9-CM  |
| 188.3 | Malignant neoplasm of anterior wall of urinary bladder               | Diagnosis | ICD-9-CM  |
| 188.4 | Malignant neoplasm of posterior wall of urinary bladder              | Diagnosis | ICD-9-CM  |
| 188.5 | Malignant neoplasm of bladder neck                                   | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                   | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                               | Category  | Code Type |
| 188.6 | Malignant neoplasm of ureteric orifice                                                                        | Diagnosis | ICD-9-CM  |
| 188.7 | Malignant neoplasm of urachus                                                                                 | Diagnosis | ICD-9-CM  |
| 188.8 | Malignant neoplasm of other specified sites of bladder                                                        | Diagnosis | ICD-9-CM  |
| 188.9 | Malignant neoplasm of bladder, part unspecified                                                               | Diagnosis | ICD-9-CM  |
| 189.1 | Malignant neoplasm of renal pelvis                                                                            | Diagnosis | ICD-9-CM  |
| 189.2 | Malignant neoplasm of ureter                                                                                  | Diagnosis | ICD-9-CM  |
| 189.3 | Malignant neoplasm of urethra                                                                                 | Diagnosis | ICD-9-CM  |
| 189.4 | Malignant neoplasm of paraurethral glands                                                                     | Diagnosis | ICD-9-CM  |
| 189.8 | Malignant neoplasm of other specified sites of urinary organs                                                 | Diagnosis | ICD-9-CM  |
| 189.9 | Malignant neoplasm of urinary organ, site unspecified                                                         | Diagnosis | ICD-9-CM  |
| 190   | Malignant neoplasm of eye                                                                                     | Diagnosis | ICD-9-CM  |
| 190.0 | Malignant neoplasm of eyeball, except conjunctiva, cornea, retina, and choroid                                | Diagnosis | ICD-9-CM  |
| 190.1 | Malignant neoplasm of orbit                                                                                   | Diagnosis | ICD-9-CM  |
| 190.2 | Malignant neoplasm of lacrimal gland                                                                          | Diagnosis | ICD-9-CM  |
| 190.3 | Malignant neoplasm of conjunctiva                                                                             | Diagnosis | ICD-9-CM  |
| 190.4 | Malignant neoplasm of cornea                                                                                  | Diagnosis | ICD-9-CM  |
| 190.5 | Malignant neoplasm of retina                                                                                  | Diagnosis | ICD-9-CM  |
| 190.6 | Malignant neoplasm of choroid                                                                                 | Diagnosis | ICD-9-CM  |
| 190.7 | Malignant neoplasm of lacrimal duct                                                                           | Diagnosis | ICD-9-CM  |
| 190.8 | Malignant neoplasm of other specified sites of eye                                                            | Diagnosis | ICD-9-CM  |
| 190.9 | Malignant neoplasm of eye, part unspecified                                                                   | Diagnosis | ICD-9-CM  |
| 191   | Malignant neoplasm of brain                                                                                   | Diagnosis | ICD-9-CM  |
| 191.0 | Malignant neoplasm of cerebrum, except lobes and ventricles                                                   | Diagnosis | ICD-9-CM  |
| 191.1 | Malignant neoplasm of frontal lobe of brain                                                                   | Diagnosis | ICD-9-CM  |
| 191.2 | Malignant neoplasm of temporal lobe of brain                                                                  | Diagnosis | ICD-9-CM  |
| 191.3 | Malignant neoplasm of parietal lobe of brain                                                                  | Diagnosis | ICD-9-CM  |
| 191.4 | Malignant neoplasm of occipital lobe of brain                                                                 | Diagnosis | ICD-9-CM  |
| 191.5 | Malignant neoplasm of ventricles of brain                                                                     | Diagnosis | ICD-9-CM  |
| 191.6 | Malignant neoplasm of cerebellum NOS                                                                          | Diagnosis | ICD-9-CM  |
| 191.7 | Malignant neoplasm of brain stem                                                                              | Diagnosis | ICD-9-CM  |
| 191.8 | Malignant neoplasm of other parts of brain                                                                    | Diagnosis | ICD-9-CM  |
| 191.9 | Malignant neoplasm of brain, unspecified site                                                                 | Diagnosis | ICD-9-CM  |
| 192   | Malignant neoplasm of other and unspecified parts of nervous system                                           | Diagnosis | ICD-9-CM  |
| 192.0 | Malignant neoplasm of cranial nerves                                                                          | Diagnosis | ICD-9-CM  |
| 192.1 | Malignant neoplasm of cerebral meninges                                                                       | Diagnosis | ICD-9-CM  |
| 192.2 | Malignant neoplasm of spinal cord                                                                             | Diagnosis | ICD-9-CM  |
| 192.3 | Malignant neoplasm of spinal meninges                                                                         | Diagnosis | ICD-9-CM  |
| 192.8 | Malignant neoplasm of other specified sites of nervous system                                                 | Diagnosis | ICD-9-CM  |
| 192.9 | Malignant neoplasm of nervous system, part unspecified                                                        | Diagnosis | ICD-9-CM  |
| 19260 | Excision of chest wall tumor including ribs                                                                   | Procedure | CPT-4     |
| 19271 | Excision of chest wall tumor involving ribs, with plastic reconstruction; without mediastinal lymphadenectomy | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                              | Code      |           |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                          | Category  | Code Type |
| 19272 | Excision of chest wall tumor involving ribs, with plastic reconstruction; with mediastinal lymphadenectomy                                                                                                               | Procedure | CPT-4     |
| 19294 | Preparation of tumor cavity, with placement of a radiation therapy applicator for intraoperative radiation therapy (IORT) concurrent with partial mastectomy (List separately in addition to code for primary procedure) | Procedure | CPT-4     |
| 193   | Malignant neoplasm of thyroid gland                                                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| 194   | Malignant neoplasm of other endocrine glands and related structures                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| 194.0 | Malignant neoplasm of adrenal gland                                                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| 194.1 | Malignant neoplasm of parathyroid gland                                                                                                                                                                                  | Diagnosis | ICD-9-CM  |
| 194.3 | Malignant neoplasm of pituitary gland and craniopharyngeal duct                                                                                                                                                          | Diagnosis | ICD-9-CM  |
| 194.4 | Malignant neoplasm of pineal gland                                                                                                                                                                                       | Diagnosis | ICD-9-CM  |
| 194.5 | Malignant neoplasm of carotid body                                                                                                                                                                                       | Diagnosis | ICD-9-CM  |
| 194.6 | Malignant neoplasm of aortic body and other paraganglia                                                                                                                                                                  | Diagnosis | ICD-9-CM  |
| 194.8 | Malignant neoplasm of other endocrine glands and related structures                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| 194.9 | Malignant neoplasm of endocrine gland, site unspecified                                                                                                                                                                  | Diagnosis | ICD-9-CM  |
| 195   | Malignant neoplasm of other and ill-defined sites                                                                                                                                                                        | Diagnosis | ICD-9-CM  |
| 195.0 | Malignant neoplasm of head, face, and neck                                                                                                                                                                               | Diagnosis | ICD-9-CM  |
| 195.1 | Malignant neoplasm of thorax                                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| 195.2 | Malignant neoplasm of abdomen                                                                                                                                                                                            | Diagnosis | ICD-9-CM  |
| 195.3 | Malignant neoplasm of pelvis                                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| 195.4 | Malignant neoplasm of upper limb                                                                                                                                                                                         | Diagnosis | ICD-9-CM  |
| 195.5 | Malignant neoplasm of lower limb                                                                                                                                                                                         | Diagnosis | ICD-9-CM  |
| 195.8 | Malignant neoplasm of other specified sites                                                                                                                                                                              | Diagnosis | ICD-9-CM  |
| 196   | Secondary and unspecified malignant neoplasm of lymph nodes                                                                                                                                                              | Diagnosis | ICD-9-CM  |
| 196.0 | Secondary and unspecified malignant neoplasm of lymph nodes of head, face, and neck                                                                                                                                      | Diagnosis | ICD-9-CM  |
| 196.1 | Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes                                                                                                                                                | Diagnosis | ICD-9-CM  |
| 196.2 | Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes                                                                                                                                              | Diagnosis | ICD-9-CM  |
| 196.3 | Secondary and unspecified malignant neoplasm of lymph nodes of axilla and upper limb                                                                                                                                     | Diagnosis | ICD-9-CM  |
| 196.5 | Secondary and unspecified malignant neoplasm of lymph nodes of inguinal region and lower limb                                                                                                                            | Diagnosis | ICD-9-CM  |
| 196.6 | Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes                                                                                                                                                  | Diagnosis | ICD-9-CM  |
| 196.8 | Secondary and unspecified malignant neoplasm of lymph nodes of multiple sites                                                                                                                                            | Diagnosis | ICD-9-CM  |
| 196.9 | Secondary and unspecified malignant neoplasm of lymph nodes, site unspecified                                                                                                                                            | Diagnosis | ICD-9-CM  |
| 197   | Secondary malignant neoplasm of respiratory and digestive systems                                                                                                                                                        | Diagnosis | ICD-9-CM  |
| 197.0 | Secondary malignant neoplasm of lung                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| 197.1 | Secondary malignant neoplasm of mediastinum                                                                                                                                                                              | Diagnosis | ICD-9-CM  |
| 197.2 | Secondary malignant neoplasm of pleura                                                                                                                                                                                   | Diagnosis | ICD-9-CM  |
| 197.3 | Secondary malignant neoplasm of other respiratory organs                                                                                                                                                                 | Diagnosis | ICD-9-CM  |
| 197.4 | Secondary malignant neoplasm of small intestine including duodenum                                                                                                                                                       | Diagnosis | ICD-9-CM  |
| 197.5 | Secondary malignant neoplasm of large intestine and rectum                                                                                                                                                               | Diagnosis | ICD-9-CM  |
| 197.6 | Secondary malignant neoplasm of retroperitoneum and peritoneum                                                                                                                                                           | Diagnosis | ICD-9-CM  |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                | Code      |           |
|--------|--------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                            | Category  | Code Type |
| 197.7  | Secondary malignant neoplasm of liver                                                      | Diagnosis | ICD-9-CM  |
| 197.8  | Secondary malignant neoplasm of other digestive organs and spleen                          | Diagnosis | ICD-9-CM  |
| 198    | Secondary malignant neoplasm of other specified sites                                      | Diagnosis | ICD-9-CM  |
| 198.1  | Secondary malignant neoplasm of other urinary organs                                       | Diagnosis | ICD-9-CM  |
| 198.2  | Secondary malignant neoplasm of skin                                                       | Diagnosis | ICD-9-CM  |
| 198.3  | Secondary malignant neoplasm of brain and spinal cord                                      | Diagnosis | ICD-9-CM  |
| 198.4  | Secondary malignant neoplasm of other parts of nervous system                              | Diagnosis | ICD-9-CM  |
| 198.5  | Secondary malignant neoplasm of bone and bone marrow                                       | Diagnosis | ICD-9-CM  |
| 198.6  | Secondary malignant neoplasm of ovary                                                      | Diagnosis | ICD-9-CM  |
| 198.7  | Secondary malignant neoplasm of adrenal gland                                              | Diagnosis | ICD-9-CM  |
| 198.8  | Secondary malignant neoplasm of other specified sites                                      | Diagnosis | ICD-9-CM  |
| 198.81 | Secondary malignant neoplasm of breast                                                     | Diagnosis | ICD-9-CM  |
| 198.82 | Secondary malignant neoplasm of genital organs                                             | Diagnosis | ICD-9-CM  |
| 198.89 | Secondary malignant neoplasm of other specified sites                                      | Diagnosis | ICD-9-CM  |
| 199    | Malignant neoplasm without specification of site                                           | Diagnosis | ICD-9-CM  |
| 199.0  | Disseminated malignant neoplasm                                                            | Diagnosis | ICD-9-CM  |
| 199.1  | Other malignant neoplasm of unspecified site                                               | Diagnosis | ICD-9-CM  |
| 199.2  | Malignant neoplasm associated with transplanted organ                                      | Diagnosis | ICD-9-CM  |
| 200    | Lymphosarcoma and reticulosarcoma and other specified malignant tumors of lymphatic tissue | Diagnosis | ICD-9-CM  |
| 200.0  | Reticulosarcoma                                                                            | Diagnosis | ICD-9-CM  |
| 200.00 | Reticulosarcoma, unspecified site, extranodal and solid organ sites                        | Diagnosis | ICD-9-CM  |
| 200.01 | Reticulosarcoma of lymph nodes of head, face, and neck                                     | Diagnosis | ICD-9-CM  |
| 200.02 | Reticulosarcoma of intrathoracic lymph nodes                                               | Diagnosis | ICD-9-CM  |
| 200.03 | Reticulosarcoma of intra-abdominal lymph nodes                                             | Diagnosis | ICD-9-CM  |
| 200.04 | Reticulosarcoma of lymph nodes of axilla and upper limb                                    | Diagnosis | ICD-9-CM  |
| 200.05 | Reticulosarcoma of lymph nodes of inguinal region and lower limb                           | Diagnosis | ICD-9-CM  |
| 200.06 | Reticulosarcoma of intrapelvic lymph nodes                                                 | Diagnosis | ICD-9-CM  |
| 200.07 | Reticulosarcoma of spleen                                                                  | Diagnosis | ICD-9-CM  |
| 200.08 | Reticulosarcoma of lymph nodes of multiple sites                                           | Diagnosis | ICD-9-CM  |
| 200.1  | Lymphosarcoma                                                                              | Diagnosis | ICD-9-CM  |
| 200.10 | Lymphosarcoma, unspecified site, extranodal and solid organ sites                          | Diagnosis | ICD-9-CM  |
| 200.11 | Lymphosarcoma of lymph nodes of head, face, and neck                                       | Diagnosis | ICD-9-CM  |
| 200.12 | Lymphosarcoma of intrathoracic lymph nodes                                                 | Diagnosis | ICD-9-CM  |
| 200.13 | Lymphosarcoma of intra-abdominal lymph nodes                                               | Diagnosis | ICD-9-CM  |
| 200.14 | Lymphosarcoma of lymph nodes of axilla and upper limb                                      | Diagnosis | ICD-9-CM  |
| 200.15 | Lymphosarcoma of lymph nodes of inguinal region and lower limb                             | Diagnosis | ICD-9-CM  |
| 200.16 | Lymphosarcoma of intrapelvic lymph nodes                                                   | Diagnosis | ICD-9-CM  |
| 200.17 | Lymphosarcoma of spleen                                                                    | Diagnosis | ICD-9-CM  |
| 200.18 | Lymphosarcoma of lymph nodes of multiple sites                                             | Diagnosis | ICD-9-CM  |
| 200.2  | Burkitt's tumor or lymphoma                                                                | Diagnosis | ICD-9-CM  |
| 200.20 | Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites            | Diagnosis | ICD-9-CM  |
| 200.21 | Burkitt's tumor or lymphoma of lymph nodes of head, face, and neck                         | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                 | Code      |           |
|--------|---------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                             | Category  | Code Type |
| 200.22 | Burkitt's tumor or lymphoma of intrathoracic lymph nodes                                    | Diagnosis | ICD-9-CM  |
| 200.23 | Burkitt's tumor or lymphoma of intra-abdominal lymph nodes                                  | Diagnosis | ICD-9-CM  |
| 200.24 | Burkitt's tumor or lymphoma of lymph nodes of axilla and upper limb                         | Diagnosis | ICD-9-CM  |
| 200.25 | Burkitt's tumor or lymphoma of lymph nodes of inguinal region and lower limb                | Diagnosis | ICD-9-CM  |
| 200.26 | Burkitt's tumor or lymphoma of intrapelvic lymph nodes                                      | Diagnosis | ICD-9-CM  |
| 200.27 | Burkitt's tumor or lymphoma of spleen                                                       | Diagnosis | ICD-9-CM  |
| 200.28 | Burkitt's tumor or lymphoma of lymph nodes of multiple sites                                | Diagnosis | ICD-9-CM  |
| 200.3  | Marginal zone lymphoma                                                                      | Diagnosis | ICD-9-CM  |
| 200.30 | Marginal zone lymphoma, unspecified site, extranodal and solid organ sites                  | Diagnosis | ICD-9-CM  |
| 200.31 | Marginal zone lymphoma, lymph nodes of head, face, and neck                                 | Diagnosis | ICD-9-CM  |
| 200.32 | Marginal zone lymphoma, intrathoracic lymph nodes                                           | Diagnosis | ICD-9-CM  |
| 200.33 | Marginal zone lymphoma, intra-abdominal lymph nodes                                         | Diagnosis | ICD-9-CM  |
| 200.34 | Marginal zone lymphoma, lymph nodes of axilla and upper limb                                | Diagnosis | ICD-9-CM  |
| 200.35 | Marginal zone lymphoma, lymph nodes of inguinal region and lower limb                       | Diagnosis | ICD-9-CM  |
| 200.36 | Marginal zone lymphoma, intrapelvic lymph nodes                                             | Diagnosis | ICD-9-CM  |
| 200.37 | Marginal zone lymphoma, spleen                                                              | Diagnosis | ICD-9-CM  |
| 200.38 | Marginal zone lymphoma, lymph nodes of multiple sites                                       | Diagnosis | ICD-9-CM  |
| 200.4  | Mantle cell lymphoma                                                                        | Diagnosis | ICD-9-CM  |
| 200.40 | Mantle cell lymphoma, unspecified site, extranodal and solid organ sites                    | Diagnosis | ICD-9-CM  |
| 200.41 | Mantle cell lymphoma, lymph nodes of head, face, and neck                                   | Diagnosis | ICD-9-CM  |
| 200.42 | Mantle cell lymphoma, intrathoracic lymph nodes                                             | Diagnosis | ICD-9-CM  |
| 200.43 | Mantle cell lymphoma, intra-abdominal lymph nodes                                           | Diagnosis | ICD-9-CM  |
| 200.44 | Mantle cell lymphoma, lymph nodes of axilla and upper limb                                  | Diagnosis | ICD-9-CM  |
| 200.45 | Mantle cell lymphoma, lymph nodes of inguinal region and lower limb                         | Diagnosis | ICD-9-CM  |
| 200.46 | Mantle cell lymphoma, intrapelvic lymph nodes                                               | Diagnosis | ICD-9-CM  |
| 200.47 | Mantle cell lymphoma, spleen                                                                | Diagnosis | ICD-9-CM  |
| 200.48 | Mantle cell lymphoma, lymph nodes of multiple sites                                         | Diagnosis | ICD-9-CM  |
| 200.5  | Primary central nervous system lymphoma                                                     | Diagnosis | ICD-9-CM  |
| 200.50 | Primary central nervous system lymphoma, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 200.51 | Primary central nervous system lymphoma, lymph nodes of head, face, and neck                | Diagnosis | ICD-9-CM  |
| 200.52 | Primary central nervous system lymphoma, intrathoracic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 200.53 | Primary central nervous system lymphoma, intra-abdominal lymph nodes                        | Diagnosis | ICD-9-CM  |
| 200.54 | Primary central nervous system lymphoma, lymph nodes of axilla and upper limb               | Diagnosis | ICD-9-CM  |
| 200.55 | Primary central nervous system lymphoma, lymph nodes of inguinal region and lower limb      | Diagnosis | ICD-9-CM  |
| 200.56 | Primary central nervous system lymphoma, intrapelvic lymph nodes                            | Diagnosis | ICD-9-CM  |
| 200.57 | Primary central nervous system lymphoma, spleen                                             | Diagnosis | ICD-9-CM  |
| 200.58 | Primary central nervous system lymphoma, lymph nodes of multiple sites                      | Diagnosis | ICD-9-CM  |
| 200.6  | Anaplastic large cell lymphoma                                                              | Diagnosis | ICD-9-CM  |
| 200.60 | Anaplastic large cell lymphoma, unspecified site, extranodal and solid organ sites          | Diagnosis | ICD-9-CM  |
| 200.61 | Anaplastic large cell lymphoma, lymph nodes of head, face, and neck                         | Diagnosis | ICD-9-CM  |
| 200.62 | Anaplastic large cell lymphoma, intrathoracic lymph nodes                                   | Diagnosis | ICD-9-CM  |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                | Code      |           |
|--------|------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                            | Category  | Code Type |
| 200.63 | Anaplastic large cell lymphoma, intra-abdominal lymph nodes                                                | Diagnosis | ICD-9-CM  |
| 200.64 | Anaplastic large cell lymphoma, lymph nodes of axilla and upper limb                                       | Diagnosis | ICD-9-CM  |
| 200.65 | Anaplastic large cell lymphoma, lymph nodes of inguinal region and lower limb                              | Diagnosis | ICD-9-CM  |
| 200.66 | Anaplastic large cell lymphoma, intrapelvic lymph nodes                                                    | Diagnosis | ICD-9-CM  |
| 200.67 | Anaplastic large cell lymphoma, spleen                                                                     | Diagnosis | ICD-9-CM  |
| 200.68 | Anaplastic large cell lymphoma, lymph nodes of multiple sites                                              | Diagnosis | ICD-9-CM  |
| 200.7  | Large cell lymphoma                                                                                        | Diagnosis | ICD-9-CM  |
| 200.70 | Large cell lymphoma, unspecified site, extranodal and solid organ sites                                    | Diagnosis | ICD-9-CM  |
| 200.71 | Large cell lymphoma, lymph nodes of head, face, and neck                                                   | Diagnosis | ICD-9-CM  |
| 200.72 | Large cell lymphoma, intrathoracic lymph nodes                                                             | Diagnosis | ICD-9-CM  |
| 200.73 | Large cell lymphoma, intra-abdominal lymph nodes                                                           | Diagnosis | ICD-9-CM  |
| 200.74 | Large cell lymphoma, lymph nodes of axilla and upper limb                                                  | Diagnosis | ICD-9-CM  |
| 200.75 | Large cell lymphoma, lymph nodes of inguinal region and lower limb                                         | Diagnosis | ICD-9-CM  |
| 200.76 | Large cell lymphoma, intrapelvic lymph nodes                                                               | Diagnosis | ICD-9-CM  |
| 200.77 | Large cell lymphoma, spleen                                                                                | Diagnosis | ICD-9-CM  |
| 200.78 | Large cell lymphoma, lymph nodes of multiple sites                                                         | Diagnosis | ICD-9-CM  |
| 200.8  | Other named variants of lymphosarcoma and reticulosarcoma                                                  | Diagnosis | ICD-9-CM  |
| 200.80 | Other named variants, unspecified site, extranodal and solid organ sites                                   | Diagnosis | ICD-9-CM  |
| 200.81 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of head, face, and neck           | Diagnosis | ICD-9-CM  |
| 200.82 | Other named variants of lymphosarcoma and reticulosarcoma of intrathoracic lymph nodes                     | Diagnosis | ICD-9-CM  |
| 200.83 | Other named variants of lymphosarcoma and reticulosarcoma of intra-abdominal lymph nodes                   | Diagnosis | ICD-9-CM  |
| 200.84 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of axilla and upper limb          | Diagnosis | ICD-9-CM  |
| 200.85 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of inguinal region and lower limb | Diagnosis | ICD-9-CM  |
| 200.86 | Other named variants of lymphosarcoma and reticulosarcoma of intrapelvic lymph nodes                       | Diagnosis | ICD-9-CM  |
| 200.87 | Other named variants of lymphosarcoma and reticulosarcoma of spleen                                        | Diagnosis | ICD-9-CM  |
| 200.88 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of multiple sites                 | Diagnosis | ICD-9-CM  |
| 201    | Hodgkin's disease                                                                                          | Diagnosis | ICD-9-CM  |
| 201.0  | Hodgkin's paraganuloma                                                                                     | Diagnosis | ICD-9-CM  |
| 201.00 | Hodgkin's paraganuloma, unspecified site, extranodal and solid organ sites                                 | Diagnosis | ICD-9-CM  |
| 201.01 | Hodgkin's paraganuloma of lymph nodes of head, face, and neck                                              | Diagnosis | ICD-9-CM  |
| 201.02 | Hodgkin's paraganuloma of intrathoracic lymph nodes                                                        | Diagnosis | ICD-9-CM  |
| 201.03 | Hodgkin's paraganuloma of intra-abdominal lymph nodes                                                      | Diagnosis | ICD-9-CM  |
| 201.04 | Hodgkin's paraganuloma of lymph nodes of axilla and upper limb                                             | Diagnosis | ICD-9-CM  |
| 201.05 | Hodgkin's paraganuloma of lymph nodes of inguinal region and lower limb                                    | Diagnosis | ICD-9-CM  |
| 201.06 | Hodgkin's paraganuloma of intrapelvic lymph nodes                                                          | Diagnosis | ICD-9-CM  |
| 201.07 | Hodgkin's paraganuloma of spleen                                                                           | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                 | Code      |           |
|--------|-------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                             | Category  | Code Type |
| 201.08 | Hodgkin's paraganuloma of lymph nodes of multiple sites                                                     | Diagnosis | ICD-9-CM  |
| 201.1  | Hodgkin's granuloma                                                                                         | Diagnosis | ICD-9-CM  |
| 201.10 | Hodgkin's granuloma, unspecified site, extranodal and solid organ sites                                     | Diagnosis | ICD-9-CM  |
| 201.11 | Hodgkin's granuloma of lymph nodes of head, face, and neck                                                  | Diagnosis | ICD-9-CM  |
| 201.12 | Hodgkin's granuloma of intrathoracic lymph nodes                                                            | Diagnosis | ICD-9-CM  |
| 201.13 | Hodgkin's granuloma of intra-abdominal lymph nodes                                                          | Diagnosis | ICD-9-CM  |
| 201.14 | Hodgkin's granuloma of lymph nodes of axilla and upper limb                                                 | Diagnosis | ICD-9-CM  |
| 201.15 | Hodgkin's granuloma of lymph nodes of inguinal region and lower limb                                        | Diagnosis | ICD-9-CM  |
| 201.16 | Hodgkin's granuloma of intrapelvic lymph nodes                                                              | Diagnosis | ICD-9-CM  |
| 201.17 | Hodgkin's granuloma of spleen                                                                               | Diagnosis | ICD-9-CM  |
| 201.18 | Hodgkin's granuloma of lymph nodes of multiple sites                                                        | Diagnosis | ICD-9-CM  |
| 201.2  | Hodgkin's sarcoma                                                                                           | Diagnosis | ICD-9-CM  |
| 201.20 | Hodgkin's sarcoma, unspecified site, extranodal and solid organ sites                                       | Diagnosis | ICD-9-CM  |
| 201.21 | Hodgkin's sarcoma of lymph nodes of head, face, and neck                                                    | Diagnosis | ICD-9-CM  |
| 201.22 | Hodgkin's sarcoma of intrathoracic lymph nodes                                                              | Diagnosis | ICD-9-CM  |
| 201.23 | Hodgkin's sarcoma of intra-abdominal lymph nodes                                                            | Diagnosis | ICD-9-CM  |
| 201.24 | Hodgkin's sarcoma of lymph nodes of axilla and upper limb                                                   | Diagnosis | ICD-9-CM  |
| 201.25 | Hodgkin's sarcoma of lymph nodes of inguinal region and lower limb                                          | Diagnosis | ICD-9-CM  |
| 201.26 | Hodgkin's sarcoma of intrapelvic lymph nodes                                                                | Diagnosis | ICD-9-CM  |
| 201.27 | Hodgkin's sarcoma of spleen                                                                                 | Diagnosis | ICD-9-CM  |
| 201.28 | Hodgkin's sarcoma of lymph nodes of multiple sites                                                          | Diagnosis | ICD-9-CM  |
| 201.4  | Hodgkin's disease, lymphocytic-histiocytic predominance                                                     | Diagnosis | ICD-9-CM  |
| 201.40 | Hodgkin's disease, lymphocytic-histiocytic predominance, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 201.41 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of head, face, and neck              | Diagnosis | ICD-9-CM  |
| 201.42 | Hodgkin's disease, lymphocytic-histiocytic predominance of intrathoracic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 201.43 | Hodgkin's disease, lymphocytic-histiocytic predominance of intra-abdominal lymph nodes                      | Diagnosis | ICD-9-CM  |
| 201.44 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of axilla and upper limb             | Diagnosis | ICD-9-CM  |
| 201.45 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-9-CM  |
| 201.46 | Hodgkin's disease, lymphocytic-histiocytic predominance of intrapelvic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 201.47 | Hodgkin's disease, lymphocytic-histiocytic predominance of spleen                                           | Diagnosis | ICD-9-CM  |
| 201.48 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of multiple sites                    | Diagnosis | ICD-9-CM  |
| 201.5  | Hodgkin's disease, nodular sclerosis                                                                        | Diagnosis | ICD-9-CM  |
| 201.50 | Hodgkin's disease, nodular sclerosis, unspecified site, extranodal and solid organ sites                    | Diagnosis | ICD-9-CM  |
| 201.51 | Hodgkin's disease, nodular sclerosis, of lymph nodes of head, face, and neck                                | Diagnosis | ICD-9-CM  |
| 201.52 | Hodgkin's disease, nodular sclerosis, of intrathoracic lymph nodes                                          | Diagnosis | ICD-9-CM  |
| 201.53 | Hodgkin's disease, nodular sclerosis, of intra-abdominal lymph nodes                                        | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                  | Code      |           |
|--------|----------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                              | Category  | Code Type |
| 201.54 | Hodgkin's disease, nodular sclerosis, of lymph nodes of axilla and upper limb                | Diagnosis | ICD-9-CM  |
| 201.55 | Hodgkin's disease, nodular sclerosis, of lymph nodes of inguinal region and lower            | Diagnosis | ICD-9-CM  |
| 201.56 | Hodgkin's disease, nodular sclerosis, of intrapelvic lymph nodes                             | Diagnosis | ICD-9-CM  |
| 201.57 | Hodgkin's disease, nodular sclerosis, of spleen                                              | Diagnosis | ICD-9-CM  |
| 201.58 | Hodgkin's disease, nodular sclerosis, of lymph nodes of multiple sites                       | Diagnosis | ICD-9-CM  |
| 201.6  | Hodgkin's disease, mixed cellularity                                                         | Diagnosis | ICD-9-CM  |
| 201.60 | Hodgkin's disease, mixed cellularity, unspecified site, extranodal and solid organ sites     | Diagnosis | ICD-9-CM  |
| 201.61 | Hodgkin's disease, mixed cellularity, involving lymph nodes of head, face, and neck          | Diagnosis | ICD-9-CM  |
| 201.62 | Hodgkin's disease, mixed cellularity, of intrathoracic lymph nodes                           | Diagnosis | ICD-9-CM  |
| 201.63 | Hodgkin's disease, mixed cellularity, of intra-abdominal lymph nodes                         | Diagnosis | ICD-9-CM  |
| 201.64 | Hodgkin's disease, mixed cellularity, of lymph nodes of axilla and upper limb                | Diagnosis | ICD-9-CM  |
| 201.65 | Hodgkin's disease, mixed cellularity, of lymph nodes of inguinal region and lower limb       | Diagnosis | ICD-9-CM  |
| 201.66 | Hodgkin's disease, mixed cellularity, of intrapelvic lymph nodes                             | Diagnosis | ICD-9-CM  |
| 201.67 | Hodgkin's disease, mixed cellularity, of spleen                                              | Diagnosis | ICD-9-CM  |
| 201.68 | Hodgkin's disease, mixed cellularity, of lymph nodes of multiple sites                       | Diagnosis | ICD-9-CM  |
| 201.7  | Hodgkin's disease, lymphocytic depletion                                                     | Diagnosis | ICD-9-CM  |
| 201.70 | Hodgkin's disease, lymphocytic depletion, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 201.71 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of head, face, and neck             | Diagnosis | ICD-9-CM  |
| 201.72 | Hodgkin's disease, lymphocytic depletion, of intrathoracic lymph nodes                       | Diagnosis | ICD-9-CM  |
| 201.73 | Hodgkin's disease, lymphocytic depletion, of intra-abdominal lymph nodes                     | Diagnosis | ICD-9-CM  |
| 201.74 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of axilla and upper limb            | Diagnosis | ICD-9-CM  |
| 201.75 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of inguinal region and lower limb   | Diagnosis | ICD-9-CM  |
| 201.76 | Hodgkin's disease, lymphocytic depletion, of intrapelvic lymph nodes                         | Diagnosis | ICD-9-CM  |
| 201.77 | Hodgkin's disease, lymphocytic depletion, of spleen                                          | Diagnosis | ICD-9-CM  |
| 201.78 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of multiple sites                   | Diagnosis | ICD-9-CM  |
| 201.9  | Hodgkin's disease, unspecified type                                                          | Diagnosis | ICD-9-CM  |
| 201.90 | Hodgkin's disease, unspecified type, unspecified site, extranodal and solid organ sites      | Diagnosis | ICD-9-CM  |
| 201.91 | Hodgkin's disease, unspecified type, of lymph nodes of head, face, and neck                  | Diagnosis | ICD-9-CM  |
| 201.92 | Hodgkin's disease, unspecified type, of intrathoracic lymph nodes                            | Diagnosis | ICD-9-CM  |
| 201.93 | Hodgkin's disease, unspecified type, of intra-abdominal lymph nodes                          | Diagnosis | ICD-9-CM  |
| 201.94 | Hodgkin's disease, unspecified type, of lymph nodes of axilla and upper limb                 | Diagnosis | ICD-9-CM  |
| 201.95 | Hodgkin's disease, unspecified type, of lymph nodes of inguinal region and lower limb        | Diagnosis | ICD-9-CM  |
| 201.96 | Hodgkin's disease, unspecified type, of intrapelvic lymph nodes                              | Diagnosis | ICD-9-CM  |
| 201.97 | Hodgkin's disease, unspecified type, of spleen                                               | Diagnosis | ICD-9-CM  |
| 201.98 | Hodgkin's disease, unspecified type, of lymph nodes of multiple sites                        | Diagnosis | ICD-9-CM  |
| 202    | Other malignant neoplasms of lymphoid and histiocytic tissue                                 | Diagnosis | ICD-9-CM  |
| 202.0  | Nodular lymphoma                                                                             | Diagnosis | ICD-9-CM  |
| 202.00 | Nodular lymphoma, unspecified site, extranodal and solid organ sites                         | Diagnosis | ICD-9-CM  |
| 202.01 | Nodular lymphoma of lymph nodes of head, face, and neck                                      | Diagnosis | ICD-9-CM  |
| 202.02 | Nodular lymphoma of intrathoracic lymph nodes                                                | Diagnosis | ICD-9-CM  |
| 202.03 | Nodular lymphoma of intra-abdominal lymph nodes                                              | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                        | Code      |           |
|--------|------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                    | Category  | Code Type |
| 202.04 | Nodular lymphoma of lymph nodes of axilla and upper limb                           | Diagnosis | ICD-9-CM  |
| 202.05 | Nodular lymphoma of lymph nodes of inguinal region and lower limb                  | Diagnosis | ICD-9-CM  |
| 202.06 | Nodular lymphoma of intrapelvic lymph nodes                                        | Diagnosis | ICD-9-CM  |
| 202.07 | Nodular lymphoma of spleen                                                         | Diagnosis | ICD-9-CM  |
| 202.08 | Nodular lymphoma of lymph nodes of multiple sites                                  | Diagnosis | ICD-9-CM  |
| 202.1  | Mycosis fungoides                                                                  | Diagnosis | ICD-9-CM  |
| 202.10 | Mycosis fungoides, unspecified site, extranodal and solid organ sites              | Diagnosis | ICD-9-CM  |
| 202.11 | Mycosis fungoides of lymph nodes of head, face, and neck                           | Diagnosis | ICD-9-CM  |
| 202.12 | Mycosis fungoides of intrathoracic lymph nodes                                     | Diagnosis | ICD-9-CM  |
| 202.13 | Mycosis fungoides of intra-abdominal lymph nodes                                   | Diagnosis | ICD-9-CM  |
| 202.14 | Mycosis fungoides of lymph nodes of axilla and upper limb                          | Diagnosis | ICD-9-CM  |
| 202.15 | Mycosis fungoides of lymph nodes of inguinal region and lower limb                 | Diagnosis | ICD-9-CM  |
| 202.16 | Mycosis fungoides of intrapelvic lymph nodes                                       | Diagnosis | ICD-9-CM  |
| 202.17 | Mycosis fungoides of spleen                                                        | Diagnosis | ICD-9-CM  |
| 202.18 | Mycosis fungoides of lymph nodes of multiple sites                                 | Diagnosis | ICD-9-CM  |
| 202.2  | Sezary's disease                                                                   | Diagnosis | ICD-9-CM  |
| 202.20 | Sezary's disease, unspecified site, extranodal and solid organ sites               | Diagnosis | ICD-9-CM  |
| 202.21 | Sezary's disease of lymph nodes of head, face, and neck                            | Diagnosis | ICD-9-CM  |
| 202.22 | Sezary's disease of intrathoracic lymph nodes                                      | Diagnosis | ICD-9-CM  |
| 202.23 | Sezary's disease of intra-abdominal lymph nodes                                    | Diagnosis | ICD-9-CM  |
| 202.24 | Sezary's disease of lymph nodes of axilla and upper limb                           | Diagnosis | ICD-9-CM  |
| 202.25 | Sezary's disease of lymph nodes of inguinal region and lower limb                  | Diagnosis | ICD-9-CM  |
| 202.26 | Sezary's disease of intrapelvic lymph nodes                                        | Diagnosis | ICD-9-CM  |
| 202.27 | Sezary's disease of spleen                                                         | Diagnosis | ICD-9-CM  |
| 202.28 | Sezary's disease of lymph nodes of multiple sites                                  | Diagnosis | ICD-9-CM  |
| 202.3  | Malignant histiocytosis                                                            | Diagnosis | ICD-9-CM  |
| 202.30 | Malignant histiocytosis, unspecified site, extranodal and solid organ sites        | Diagnosis | ICD-9-CM  |
| 202.31 | Malignant histiocytosis of lymph nodes of head, face, and neck                     | Diagnosis | ICD-9-CM  |
| 202.32 | Malignant histiocytosis of intrathoracic lymph nodes                               | Diagnosis | ICD-9-CM  |
| 202.33 | Malignant histiocytosis of intra-abdominal lymph nodes                             | Diagnosis | ICD-9-CM  |
| 202.34 | Malignant histiocytosis of lymph nodes of axilla and upper limb                    | Diagnosis | ICD-9-CM  |
| 202.35 | Malignant histiocytosis of lymph nodes of inguinal region and lower limb           | Diagnosis | ICD-9-CM  |
| 202.36 | Malignant histiocytosis of intrapelvic lymph nodes                                 | Diagnosis | ICD-9-CM  |
| 202.37 | Malignant histiocytosis of spleen                                                  | Diagnosis | ICD-9-CM  |
| 202.38 | Malignant histiocytosis of lymph nodes of multiple sites                           | Diagnosis | ICD-9-CM  |
| 202.4  | Leukemic reticuloendotheliosis                                                     | Diagnosis | ICD-9-CM  |
| 202.40 | Leukemic reticuloendotheliosis, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 202.41 | Leukemic reticuloendotheliosis of lymph nodes of head, face, and neck              | Diagnosis | ICD-9-CM  |
| 202.42 | Leukemic reticuloendotheliosis of intrathoracic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 202.43 | Leukemic reticuloendotheliosis of intra-abdominal lymph nodes                      | Diagnosis | ICD-9-CM  |
| 202.44 | Leukemic reticuloendotheliosis of lymph nodes of axilla and upper limb             | Diagnosis | ICD-9-CM  |
| 202.45 | Leukemic reticuloendotheliosis of lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-9-CM  |
| 202.46 | Leukemic reticuloendotheliosis of intrapelvic lymph nodes                          | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                    | Code      |           |
|--------|--------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                | Category  | Code Type |
| 202.47 | Leukemic reticuloendotheliosis of spleen                                       | Diagnosis | ICD-9-CM  |
| 202.48 | Leukemic reticuloendotheliosis of lymph nodes of multiple sites                | Diagnosis | ICD-9-CM  |
| 202.5  | Letterer-Siwe disease                                                          | Diagnosis | ICD-9-CM  |
| 202.50 | Letterer-Siwe disease, unspecified site, extranodal and solid organ sites      | Diagnosis | ICD-9-CM  |
| 202.51 | Letterer-Siwe disease of lymph nodes of head, face, and neck                   | Diagnosis | ICD-9-CM  |
| 202.52 | Letterer-Siwe disease of intrathoracic lymph nodes                             | Diagnosis | ICD-9-CM  |
| 202.53 | Letterer-Siwe disease of intra-abdominal lymph nodes                           | Diagnosis | ICD-9-CM  |
| 202.54 | Letterer-Siwe disease of lymph nodes of axilla and upper limb                  | Diagnosis | ICD-9-CM  |
| 202.55 | Letterer-Siwe disease of lymph nodes of inguinal region and lower limb         | Diagnosis | ICD-9-CM  |
| 202.56 | Letterer-Siwe disease of intrapelvic lymph nodes                               | Diagnosis | ICD-9-CM  |
| 202.57 | Letterer-Siwe disease of spleen                                                | Diagnosis | ICD-9-CM  |
| 202.58 | Letterer-Siwe disease of lymph nodes of multiple sites                         | Diagnosis | ICD-9-CM  |
| 202.6  | Malignant mast cell tumors                                                     | Diagnosis | ICD-9-CM  |
| 202.60 | Malignant mast cell tumors, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 202.61 | Malignant mast cell tumors of lymph nodes of head, face, and neck              | Diagnosis | ICD-9-CM  |
| 202.62 | Malignant mast cell tumors of intrathoracic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 202.63 | Malignant mast cell tumors of intra-abdominal lymph nodes                      | Diagnosis | ICD-9-CM  |
| 202.64 | Malignant mast cell tumors of lymph nodes of axilla and upper limb             | Diagnosis | ICD-9-CM  |
| 202.65 | Malignant mast cell tumors of lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-9-CM  |
| 202.66 | Malignant mast cell tumors of intrapelvic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 202.67 | Malignant mast cell tumors of spleen                                           | Diagnosis | ICD-9-CM  |
| 202.68 | Malignant mast cell tumors of lymph nodes of multiple sites                    | Diagnosis | ICD-9-CM  |
| 202.7  | Peripheral T-cell lymphoma                                                     | Diagnosis | ICD-9-CM  |
| 202.70 | Peripheral T-cell lymphoma, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 202.71 | Peripheral T-cell lymphoma, lymph nodes of head, face, and neck                | Diagnosis | ICD-9-CM  |
| 202.72 | Peripheral T-cell lymphoma, intrathoracic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 202.73 | Peripheral T-cell lymphoma, intra-abdominal lymph nodes                        | Diagnosis | ICD-9-CM  |
| 202.74 | Peripheral T-cell lymphoma, lymph nodes of axilla and upper limb               | Diagnosis | ICD-9-CM  |
| 202.75 | Peripheral T-cell lymphoma, lymph nodes of inguinal region and lower limb      | Diagnosis | ICD-9-CM  |
| 202.76 | Peripheral T-cell lymphoma, intrapelvic lymph nodes                            | Diagnosis | ICD-9-CM  |
| 202.77 | Peripheral T-cell lymphoma, spleen                                             | Diagnosis | ICD-9-CM  |
| 202.78 | Peripheral T-cell lymphoma, lymph nodes of multiple sites                      | Diagnosis | ICD-9-CM  |
| 202.8  | Other malignant lymphomas                                                      | Diagnosis | ICD-9-CM  |
| 202.80 | Other malignant lymphomas, unspecified site, extranodal and solid organ sites  | Diagnosis | ICD-9-CM  |
| 202.81 | Other malignant lymphomas of lymph nodes of head, face, and neck               | Diagnosis | ICD-9-CM  |
| 202.82 | Other malignant lymphomas of intrathoracic lymph nodes                         | Diagnosis | ICD-9-CM  |
| 202.83 | Other malignant lymphomas of intra-abdominal lymph nodes                       | Diagnosis | ICD-9-CM  |
| 202.84 | Other malignant lymphomas of lymph nodes of axilla and upper limb              | Diagnosis | ICD-9-CM  |
| 202.85 | Other malignant lymphomas of lymph nodes of inguinal region and lower limb     | Diagnosis | ICD-9-CM  |
| 202.86 | Other malignant lymphomas of intrapelvic lymph nodes                           | Diagnosis | ICD-9-CM  |
| 202.87 | Other malignant lymphomas of spleen                                            | Diagnosis | ICD-9-CM  |
| 202.88 | Other malignant lymphomas of lymph nodes of multiple sites                     | Diagnosis | ICD-9-CM  |
| 202.9  | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue   | Diagnosis | ICD-9-CM  |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                                      | Code      |           |
|--------|----------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                  | Category  | Code Type |
| 202.90 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 202.91 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of head, face, and neck              | Diagnosis | ICD-9-CM  |
| 202.92 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrathoracic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 202.93 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intra-abdominal lymph nodes                      | Diagnosis | ICD-9-CM  |
| 202.94 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of axilla and upper limb             | Diagnosis | ICD-9-CM  |
| 202.95 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-9-CM  |
| 202.96 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrapelvic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 202.97 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of spleen                                           | Diagnosis | ICD-9-CM  |
| 202.98 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of multiple sites                    | Diagnosis | ICD-9-CM  |
| 203    | Multiple myeloma and immunoproliferative neoplasms                                                                               | Diagnosis | ICD-9-CM  |
| 203.0  | Multiple myeloma                                                                                                                 | Diagnosis | ICD-9-CM  |
| 203.00 | Multiple myeloma, without mention of having achieved remission                                                                   | Diagnosis | ICD-9-CM  |
| 203.01 | Multiple myeloma in remission                                                                                                    | Diagnosis | ICD-9-CM  |
| 203.02 | Multiple myeloma, in relapse                                                                                                     | Diagnosis | ICD-9-CM  |
| 203.1  | Plasma cell leukemia                                                                                                             | Diagnosis | ICD-9-CM  |
| 203.10 | Plasma cell leukemia, without mention of having achieved remission                                                               | Diagnosis | ICD-9-CM  |
| 203.11 | Plasma cell leukemia in remission                                                                                                | Diagnosis | ICD-9-CM  |
| 203.12 | Plasma cell leukemia, in relapse                                                                                                 | Diagnosis | ICD-9-CM  |
| 203.8  | Other immunoproliferative neoplasms                                                                                              | Diagnosis | ICD-9-CM  |
| 203.80 | Other immunoproliferative neoplasms, without mention of having achieved                                                          | Diagnosis | ICD-9-CM  |
| 203.81 | Other immunoproliferative neoplasms in remission                                                                                 | Diagnosis | ICD-9-CM  |
| 203.82 | Other immunoproliferative neoplasms, in relapse                                                                                  | Diagnosis | ICD-9-CM  |
| 204    | Lymphoid leukemia                                                                                                                | Diagnosis | ICD-9-CM  |
| 204.0  | Acute lymphoid leukemia                                                                                                          | Diagnosis | ICD-9-CM  |
| 204.00 | Acute lymphoid leukemia, without mention of having achieved remission                                                            | Diagnosis | ICD-9-CM  |
| 204.01 | Acute lymphoid leukemia in remission                                                                                             | Diagnosis | ICD-9-CM  |
| 204.02 | Acute lymphoid leukemia, in relapse                                                                                              | Diagnosis | ICD-9-CM  |
| 204.1  | Chronic lymphoid leukemia                                                                                                        | Diagnosis | ICD-9-CM  |
| 204.10 | Chronic lymphoid leukemia, without mention of having achieved remission                                                          | Diagnosis | ICD-9-CM  |
| 204.11 | Chronic lymphoid leukemia in remission                                                                                           | Diagnosis | ICD-9-CM  |
| 204.12 | Chronic lymphoid leukemia, in relapse                                                                                            | Diagnosis | ICD-9-CM  |
| 204.2  | Subacute lymphoid leukemia                                                                                                       | Diagnosis | ICD-9-CM  |
| 204.20 | Subacute lymphoid leukemia, without mention of having achieved remission                                                         | Diagnosis | ICD-9-CM  |
| 204.21 | Subacute lymphoid leukemia in remission                                                                                          | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                 | Code      |           |
|--------|-----------------------------------------------------------------------------|-----------|-----------|
|        |                                                                             | Category  | Code Type |
| 204.22 | Subacute lymphoid leukemia, in relapse                                      | Diagnosis | ICD-9-CM  |
| 204.8  | Other lymphoid leukemia                                                     | Diagnosis | ICD-9-CM  |
| 204.80 | Other lymphoid leukemia, without mention of having achieved remission       | Diagnosis | ICD-9-CM  |
| 204.81 | Other lymphoid leukemia in remission                                        | Diagnosis | ICD-9-CM  |
| 204.82 | Other lymphoid leukemia, in relapse                                         | Diagnosis | ICD-9-CM  |
| 204.9  | Unspecified lymphoid leukemia                                               | Diagnosis | ICD-9-CM  |
| 204.90 | Unspecified lymphoid leukemia, without mention of having achieved remission | Diagnosis | ICD-9-CM  |
| 204.91 | Unspecified lymphoid leukemia in remission                                  | Diagnosis | ICD-9-CM  |
| 204.92 | Unspecified lymphoid leukemia, in relapse                                   | Diagnosis | ICD-9-CM  |
| 205    | Myeloid leukemia                                                            | Diagnosis | ICD-9-CM  |
| 205.0  | Acute myeloid leukemia                                                      | Diagnosis | ICD-9-CM  |
| 205.00 | Acute myeloid leukemia, without mention of having achieved remission        | Diagnosis | ICD-9-CM  |
| 205.01 | Acute myeloid leukemia in remission                                         | Diagnosis | ICD-9-CM  |
| 205.02 | Acute myeloid leukemia, in relapse                                          | Diagnosis | ICD-9-CM  |
| 205.1  | Chronic myeloid leukemia                                                    | Diagnosis | ICD-9-CM  |
| 205.10 | Chronic myeloid leukemia, without mention of having achieved remission      | Diagnosis | ICD-9-CM  |
| 205.11 | Chronic myeloid leukemia in remission                                       | Diagnosis | ICD-9-CM  |
| 205.12 | Chronic myeloid leukemia, in relapse                                        | Diagnosis | ICD-9-CM  |
| 205.2  | Subacute myeloid leukemia                                                   | Diagnosis | ICD-9-CM  |
| 205.20 | Subacute myeloid leukemia, without mention of having achieved remission     | Diagnosis | ICD-9-CM  |
| 205.21 | Subacute myeloid leukemia in remission                                      | Diagnosis | ICD-9-CM  |
| 205.22 | Subacute myeloid leukemia, in relapse                                       | Diagnosis | ICD-9-CM  |
| 205.3  | Myeloid sarcoma                                                             | Diagnosis | ICD-9-CM  |
| 205.30 | Myeloid sarcoma, without mention of having achieved remission               | Diagnosis | ICD-9-CM  |
| 205.31 | Myeloid sarcoma in remission                                                | Diagnosis | ICD-9-CM  |
| 205.32 | Myeloid sarcoma, in relapse                                                 | Diagnosis | ICD-9-CM  |
| 205.8  | Other myeloid leukemia                                                      | Diagnosis | ICD-9-CM  |
| 205.80 | Other myeloid leukemia, without mention of having achieved remission        | Diagnosis | ICD-9-CM  |
| 205.81 | Other myeloid leukemia in remission                                         | Diagnosis | ICD-9-CM  |
| 205.82 | Other myeloid leukemia, in relapse                                          | Diagnosis | ICD-9-CM  |
| 205.9  | Unspecified myeloid leukemia                                                | Diagnosis | ICD-9-CM  |
| 205.90 | Unspecified myeloid leukemia, without mention of having achieved remission  | Diagnosis | ICD-9-CM  |
| 205.91 | Unspecified myeloid leukemia in remission                                   | Diagnosis | ICD-9-CM  |
| 205.92 | Unspecified myeloid leukemia, in relapse                                    | Diagnosis | ICD-9-CM  |
| 206    | Monocytic leukemia                                                          | Diagnosis | ICD-9-CM  |
| 206.0  | Acute monocytic leukemia                                                    | Diagnosis | ICD-9-CM  |
| 206.00 | Acute monocytic leukemia, without mention of having achieved remission      | Diagnosis | ICD-9-CM  |
| 206.01 | Acute monocytic leukemia in remission                                       | Diagnosis | ICD-9-CM  |
| 206.02 | Acute monocytic leukemia, in relapse                                        | Diagnosis | ICD-9-CM  |
| 206.1  | Chronic monocytic leukemia                                                  | Diagnosis | ICD-9-CM  |
| 206.10 | Chronic monocytic leukemia, without mention of having achieved remission    | Diagnosis | ICD-9-CM  |
| 206.11 | Chronic monocytic leukemia in remission                                     | Diagnosis | ICD-9-CM  |
| 206.12 | Chronic monocytic leukemia, in relapse                                      | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                             | Code      |           |
|--------|-----------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                         | Category  | Code Type |
| 206.2  | Subacute monocytic leukemia                                                             | Diagnosis | ICD-9-CM  |
| 206.20 | Subacute monocytic leukemia, without mention of having achieved remission               | Diagnosis | ICD-9-CM  |
| 206.21 | Subacute monocytic leukemia in remission                                                | Diagnosis | ICD-9-CM  |
| 206.22 | Subacute monocytic leukemia, in relapse                                                 | Diagnosis | ICD-9-CM  |
| 206.8  | Other monocytic leukemia                                                                | Diagnosis | ICD-9-CM  |
| 206.80 | Other monocytic leukemia, without mention of having achieved remission                  | Diagnosis | ICD-9-CM  |
| 206.81 | Other monocytic leukemia in remission                                                   | Diagnosis | ICD-9-CM  |
| 206.82 | Other monocytic leukemia, in relapse                                                    | Diagnosis | ICD-9-CM  |
| 206.9  | Unspecified monocytic leukemia                                                          | Diagnosis | ICD-9-CM  |
| 206.90 | Unspecified monocytic leukemia, without mention of having achieved remission            | Diagnosis | ICD-9-CM  |
| 206.91 | Unspecified monocytic leukemia in remission                                             | Diagnosis | ICD-9-CM  |
| 206.92 | Unspecified monocytic leukemia, in relapse                                              | Diagnosis | ICD-9-CM  |
| 207    | Other specified leukemia                                                                | Diagnosis | ICD-9-CM  |
| 207.0  | Acute erythremia and erythroleukemia                                                    | Diagnosis | ICD-9-CM  |
| 207.00 | Acute erythremia and erythroleukemia, without mention of having achieved remission      | Diagnosis | ICD-9-CM  |
| 207.01 | Acute erythremia and erythroleukemia in remission                                       | Diagnosis | ICD-9-CM  |
| 207.02 | Acute erythremia and erythroleukemia, in relapse                                        | Diagnosis | ICD-9-CM  |
| 207.1  | Chronic erythremia                                                                      | Diagnosis | ICD-9-CM  |
| 207.10 | Chronic erythremia, without mention of having achieved remission                        | Diagnosis | ICD-9-CM  |
| 207.11 | Chronic erythremia in remission                                                         | Diagnosis | ICD-9-CM  |
| 207.12 | Chronic erythremia, in relapse                                                          | Diagnosis | ICD-9-CM  |
| 207.2  | Megakaryocytic leukemia                                                                 | Diagnosis | ICD-9-CM  |
| 207.20 | Megakaryocytic leukemia, without mention of having achieved remission                   | Diagnosis | ICD-9-CM  |
| 207.21 | Megakaryocytic leukemia in remission                                                    | Diagnosis | ICD-9-CM  |
| 207.22 | Megakaryocytic leukemia, in relapse                                                     | Diagnosis | ICD-9-CM  |
| 207.8  | Other specified leukemia                                                                | Diagnosis | ICD-9-CM  |
| 207.80 | Other specified leukemia, without mention of having achieved remission                  | Diagnosis | ICD-9-CM  |
| 207.81 | Other specified leukemia in remission                                                   | Diagnosis | ICD-9-CM  |
| 207.82 | Other specified leukemia, in relapse                                                    | Diagnosis | ICD-9-CM  |
| 208    | Leukemia of unspecified cell type                                                       | Diagnosis | ICD-9-CM  |
| 208.0  | Acute leukemia of unspecified cell type                                                 | Diagnosis | ICD-9-CM  |
| 208.00 | Acute leukemia of unspecified cell type, without mention of having achieved remission   | Diagnosis | ICD-9-CM  |
| 208.01 | Acute leukemia of unspecified cell type in remission                                    | Diagnosis | ICD-9-CM  |
| 208.02 | Acute leukemia of unspecified cell type, in relapse                                     | Diagnosis | ICD-9-CM  |
| 208.1  | Chronic leukemia of unspecified cell type                                               | Diagnosis | ICD-9-CM  |
| 208.10 | Chronic leukemia of unspecified cell type, without mention of having achieved remission | Diagnosis | ICD-9-CM  |
| 208.11 | Chronic leukemia of unspecified cell type in remission                                  | Diagnosis | ICD-9-CM  |
| 208.12 | Chronic leukemia of unspecified cell type, in relapse                                   | Diagnosis | ICD-9-CM  |
| 208.2  | Subacute leukemia of unspecified cell type                                              | Diagnosis | ICD-9-CM  |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                              | Code      |           |
|--------|------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                          | Category  | Code Type |
| 208.20 | Subacute leukemia of unspecified cell type, without mention of having achieved remission | Diagnosis | ICD-9-CM  |
| 208.21 | Subacute leukemia of unspecified cell type in remission                                  | Diagnosis | ICD-9-CM  |
| 208.22 | Subacute leukemia of unspecified cell type, in relapse                                   | Diagnosis | ICD-9-CM  |
| 208.8  | Other leukemia of unspecified cell type                                                  | Diagnosis | ICD-9-CM  |
| 208.80 | Other leukemia of unspecified cell type, without mention of having achieved remission    | Diagnosis | ICD-9-CM  |
| 208.81 | Other leukemia of unspecified cell type in remission                                     | Diagnosis | ICD-9-CM  |
| 208.82 | Other leukemia of unspecified cell type, in relapse                                      | Diagnosis | ICD-9-CM  |
| 208.9  | Unspecified leukemia                                                                     | Diagnosis | ICD-9-CM  |
| 208.90 | Unspecified leukemia, without mention of having achieved remission                       | Diagnosis | ICD-9-CM  |
| 208.91 | Unspecified leukemia in remission                                                        | Diagnosis | ICD-9-CM  |
| 208.92 | Unspecified leukemia, in relapse                                                         | Diagnosis | ICD-9-CM  |
| 209    | Neuroendocrine tumors                                                                    | Diagnosis | ICD-9-CM  |
| 209.0  | Malignant carcinoid tumors of the small intestine                                        | Diagnosis | ICD-9-CM  |
| 209.00 | Malignant carcinoid tumor of the small intestine, unspecified portion                    | Diagnosis | ICD-9-CM  |
| 209.01 | Malignant carcinoid tumor of the duodenum                                                | Diagnosis | ICD-9-CM  |
| 209.02 | Malignant carcinoid tumor of the jejunum                                                 | Diagnosis | ICD-9-CM  |
| 209.03 | Malignant carcinoid tumor of the ileum                                                   | Diagnosis | ICD-9-CM  |
| 209.1  | Malignant carcinoid tumors of the appendix, large intestine, and rectum                  | Diagnosis | ICD-9-CM  |
| 209.10 | Malignant carcinoid tumor of the large intestine, unspecified portion                    | Diagnosis | ICD-9-CM  |
| 209.11 | Malignant carcinoid tumor of the appendix                                                | Diagnosis | ICD-9-CM  |
| 209.12 | Malignant carcinoid tumor of the cecum                                                   | Diagnosis | ICD-9-CM  |
| 209.13 | Malignant carcinoid tumor of the ascending colon                                         | Diagnosis | ICD-9-CM  |
| 209.14 | Malignant carcinoid tumor of the transverse colon                                        | Diagnosis | ICD-9-CM  |
| 209.15 | Malignant carcinoid tumor of the descending colon                                        | Diagnosis | ICD-9-CM  |
| 209.16 | Malignant carcinoid tumor of the sigmoid colon                                           | Diagnosis | ICD-9-CM  |
| 209.17 | Malignant carcinoid tumor of the rectum                                                  | Diagnosis | ICD-9-CM  |
| 209.2  | Malignant carcinoid tumors of other and unspecified sites                                | Diagnosis | ICD-9-CM  |
| 209.20 | Malignant carcinoid tumor of unknown primary site                                        | Diagnosis | ICD-9-CM  |
| 209.21 | Malignant carcinoid tumor of the bronchus and lung                                       | Diagnosis | ICD-9-CM  |
| 209.22 | Malignant carcinoid tumor of the thymus                                                  | Diagnosis | ICD-9-CM  |
| 209.23 | Malignant carcinoid tumor of the stomach                                                 | Diagnosis | ICD-9-CM  |
| 209.25 | Malignant carcinoid tumor of foregut, not otherwise specified                            | Diagnosis | ICD-9-CM  |
| 209.26 | Malignant carcinoid tumor of midgut, not otherwise specified                             | Diagnosis | ICD-9-CM  |
| 209.27 | Malignant carcinoid tumor of hindgut, not otherwise specified                            | Diagnosis | ICD-9-CM  |
| 209.29 | Malignant carcinoid tumor of other sites                                                 | Diagnosis | ICD-9-CM  |
| 209.3  | Malignant poorly differentiated neuroendocrine tumors                                    | Diagnosis | ICD-9-CM  |
| 209.30 | Malignant poorly differentiated neuroendocrine carcinoma, any site                       | Diagnosis | ICD-9-CM  |
| 209.7  | Secondary neuroendocrine tumors                                                          | Diagnosis | ICD-9-CM  |
| 209.70 | Secondary neuroendocrine tumor, unspecified site                                         | Diagnosis | ICD-9-CM  |
| 209.71 | Secondary neuroendocrine tumor of distant lymph nodes                                    | Diagnosis | ICD-9-CM  |
| 209.72 | Secondary neuroendocrine tumor of liver                                                  | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                                                                                                                                      | Code      |           |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                                                                                                                  | Category  | Code Type |
| 209.73 | Secondary neuroendocrine tumor of bone                                                                                                                                                                                           | Diagnosis | ICD-9-CM  |
| 209.74 | Secondary neuroendocrine tumor of peritoneum                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| 209.79 | Secondary neuroendocrine tumor of other sites                                                                                                                                                                                    | Diagnosis | ICD-9-CM  |
| 20982  | Ablation therapy for reduction or eradication of 1 or more bone tumors (eg, metastasis) including adjacent soft tissue when involved by tumor extension, percutaneous, including imaging guidance when performed; radiofrequency | Procedure | CPT-4     |
| 20983  | Ablation therapy for reduction or eradication of 1 or more bone tumors (eg, metastasis) including adjacent soft tissue when involved by tumor extension, percutaneous, including imaging guidance when performed; cryoablation   | Procedure | CPT-4     |
| 21011  | Excision, tumor, soft tissue of face or scalp, subcutaneous; less than 2 cm                                                                                                                                                      | Procedure | CPT-4     |
| 21012  | Excision, tumor, soft tissue of face or scalp, subcutaneous; 2 cm or greater                                                                                                                                                     | Procedure | CPT-4     |
| 21013  | Excision, tumor, soft tissue of face and scalp, subfascial (eg, subgaleal, intramuscular); less than 2 cm                                                                                                                        | Procedure | CPT-4     |
| 21014  | Excision, tumor, soft tissue of face and scalp, subfascial (eg, subgaleal, intramuscular); 2 cm or greater                                                                                                                       | Procedure | CPT-4     |
| 21015  | Radical resection of tumor (eg, sarcoma), soft tissue of face or scalp; less than 2 cm                                                                                                                                           | Procedure | CPT-4     |
| 21016  | Radical resection of tumor (eg, sarcoma), soft tissue of face or scalp; 2 cm or greater                                                                                                                                          | Procedure | CPT-4     |
| 21034  | Excision of malignant tumor of maxilla or zygoma                                                                                                                                                                                 | Procedure | CPT-4     |
| 21044  | Excision of malignant tumor of mandible;                                                                                                                                                                                         | Procedure | CPT-4     |
| 21045  | Excision of malignant tumor of mandible; radical resection                                                                                                                                                                       | Procedure | CPT-4     |
| 21552  | Excision, tumor, soft tissue of neck or anterior thorax, subcutaneous; 3 cm or greater                                                                                                                                           | Procedure | CPT-4     |
| 21554  | Excision, tumor, soft tissue of neck or anterior thorax, subfascial (eg, intramuscular); 5 cm or greater                                                                                                                         | Procedure | CPT-4     |
| 21555  | Excision, tumor, soft tissue of neck or anterior thorax, subcutaneous; less than 3 cm                                                                                                                                            | Procedure | CPT-4     |
| 21556  | Excision, tumor, soft tissue of neck or anterior thorax, subfascial (eg, intramuscular); less than 5 cm                                                                                                                          | Procedure | CPT-4     |
| 21557  | Radical resection of tumor (eg, sarcoma), soft tissue of neck or anterior thorax; less than 5 cm                                                                                                                                 | Procedure | CPT-4     |
| 21558  | Radical resection of tumor (eg, sarcoma), soft tissue of neck or anterior thorax; 5 cm or greater                                                                                                                                | Procedure | CPT-4     |
| 21601  | Excision of chest wall tumor including rib(s)                                                                                                                                                                                    | Procedure | CPT-4     |
| 21602  | Excision of chest wall tumor involving rib(s), with plastic reconstruction; without mediastinal lymphadenectomy                                                                                                                  | Procedure | CPT-4     |
| 21603  | Excision of chest wall tumor involving rib(s), with plastic reconstruction; with mediastinal lymphadenectomy                                                                                                                     | Procedure | CPT-4     |
| 21930  | Excision, tumor, soft tissue of back or flank, subcutaneous; less than 3 cm                                                                                                                                                      | Procedure | CPT-4     |
| 21931  | Excision, tumor, soft tissue of back or flank, subcutaneous; 3 cm or greater                                                                                                                                                     | Procedure | CPT-4     |
| 21932  | Excision, tumor, soft tissue of back or flank, subfascial (eg, intramuscular); less than 5 cm                                                                                                                                    | Procedure | CPT-4     |
| 21933  | Excision, tumor, soft tissue of back or flank, subfascial (eg, intramuscular); 5 cm or greater                                                                                                                                   | Procedure | CPT-4     |
| 21935  | Radical resection of tumor (eg, sarcoma), soft tissue of back or flank; less than 5 cm                                                                                                                                           | Procedure | CPT-4     |
| 21936  | Radical resection of tumor (eg, sarcoma), soft tissue of back or flank; 5 cm or greater                                                                                                                                          | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                              | Code      |           |
|-------|----------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                          | Category  | Code Type |
| 22105 | PART RESECT VERTEBRAL COMPONENT TUMOR; CERV                                                              | Procedure | CPT-4     |
| 22106 | PART RESECT VERTEBRAL COMPONENT TUMOR; THORACIC                                                          | Procedure | CPT-4     |
| 22107 | PART RESECT VERTEBRAL COMPONENT TUMOR; LUMBAR                                                            | Procedure | CPT-4     |
| 223.1 | Benign neoplasm of renal pelvis                                                                          | Diagnosis | ICD-9-CM  |
| 22900 | Excision, tumor, soft tissue of abdominal wall, subfascial (eg, intramuscular); less than 5 cm           | Procedure | CPT-4     |
| 22901 | Excision, tumor, soft tissue of abdominal wall, subfascial (eg, intramuscular); 5 cm or greater          | Procedure | CPT-4     |
| 22902 | Excision, tumor, soft tissue of abdominal wall, subcutaneous; less than 3 cm                             | Procedure | CPT-4     |
| 22903 | Excision, tumor, soft tissue of abdominal wall, subcutaneous; 3 cm or greater                            | Procedure | CPT-4     |
| 22904 | Radical resection of tumor (eg, sarcoma), soft tissue of abdominal wall; less than 5 cm                  | Procedure | CPT-4     |
| 22905 | Radical resection of tumor (eg, sarcoma), soft tissue of abdominal wall; 5 cm or greater                 | Procedure | CPT-4     |
| 23071 | Excision, tumor, soft tissue of shoulder area, subcutaneous; 3 cm or greater                             | Procedure | CPT-4     |
| 23073 | Excision, tumor, soft tissue of shoulder area, subfascial (eg, intramuscular); 5 cm or greater           | Procedure | CPT-4     |
| 23075 | Excision, tumor, soft tissue of shoulder area, subcutaneous; less than 3 cm                              | Procedure | CPT-4     |
| 23076 | Excision, tumor, soft tissue of shoulder area, subfascial (eg, intramuscular); less than 5 cm            | Procedure | CPT-4     |
| 23077 | Radical resection of tumor (eg, sarcoma), soft tissue of shoulder area; less than 5 cm                   | Procedure | CPT-4     |
| 23078 | Radical resection of tumor (eg, sarcoma), soft tissue of shoulder area; 5 cm or greater                  | Procedure | CPT-4     |
| 23200 | Radical resection of tumor; clavicle                                                                     | Procedure | CPT-4     |
| 23210 | Radical resection of tumor; scapula                                                                      | Procedure | CPT-4     |
| 23220 | Radical resection of tumor, proximal humerus                                                             | Procedure | CPT-4     |
| 23221 | Radical resection of bone tumor, proximal humerus; with autograft (includes obtaining graft)             | Procedure | CPT-4     |
| 23222 | Radical resection of bone tumor, proximal humerus; with prosthetic replacement                           | Procedure | CPT-4     |
| 24071 | Excision, tumor, soft tissue of upper arm or elbow area, subcutaneous; 3 cm or greater                   | Procedure | CPT-4     |
| 24073 | Excision, tumor, soft tissue of upper arm or elbow area, subfascial (eg, intramuscular); 5 cm or greater | Procedure | CPT-4     |
| 24075 | Excision, tumor, soft tissue of upper arm or elbow area, subcutaneous; less than 3 cm                    | Procedure | CPT-4     |
| 24076 | Excision, tumor, soft tissue of upper arm or elbow area, subfascial (eg, intramuscular); less than 5 cm  | Procedure | CPT-4     |
| 24077 | Radical resection of tumor (eg, sarcoma), soft tissue of upper arm or elbow area; less than 5 cm         | Procedure | CPT-4     |
| 24079 | Radical resection of tumor (eg, sarcoma), soft tissue of upper arm or elbow area; 5 cm or greater        | Procedure | CPT-4     |
| 24150 | Radical resection of tumor, shaft or distal humerus                                                      | Procedure | CPT-4     |
| 24151 | Radical resection for tumor, shaft or distal humerus; with autograft (includes obtaining graft)          | Procedure | CPT-4     |
| 24152 | Radical resection of tumor, radial head or neck                                                          | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                  | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                              | Category  | Code Type |
| 24153 | Radical resection for tumor, radial head or neck; with autograft (includes obtaining graft)                                  | Procedure | CPT-4     |
| 25071 | Excision, tumor, soft tissue of forearm and/or wrist area, subcutaneous; 3 cm or greater                                     | Procedure | CPT-4     |
| 25073 | Excision, tumor, soft tissue of forearm and/or wrist area, subfascial (eg, intramuscular); 3 cm or greater                   | Procedure | CPT-4     |
| 25075 | Excision, tumor, soft tissue of forearm and/or wrist area, subcutaneous; less than 3 cm                                      | Procedure | CPT-4     |
| 25076 | Excision, tumor, soft tissue of forearm and/or wrist area, subfascial (eg, intramuscular); less than 3 cm                    | Procedure | CPT-4     |
| 25077 | Radical resection of tumor (eg, sarcoma), soft tissue of forearm and/or wrist area; less than 3 cm                           | Procedure | CPT-4     |
| 25078 | Radical resection of tumor (eg, sarcoma), soft tissue of forearm and/or wrist area; 3 cm or greater                          | Procedure | CPT-4     |
| 25170 | Radical resection of tumor, radius or ulna                                                                                   | Procedure | CPT-4     |
| 26111 | Excision, tumor or vascular malformation, soft tissue of hand or finger, subcutaneous; 1.5 cm or greater                     | Procedure | CPT-4     |
| 26113 | Excision, tumor, soft tissue, or vascular malformation, of hand or finger, subfascial (eg, intramuscular); 1.5 cm or greater | Procedure | CPT-4     |
| 26115 | Excision, tumor or vascular malformation, soft tissue of hand or finger, subcutaneous; less than 1.5 cm                      | Procedure | CPT-4     |
| 26116 | Excision, tumor, soft tissue, or vascular malformation, of hand or finger, subfascial (eg, intramuscular); less than 1.5 cm  | Procedure | CPT-4     |
| 26117 | Radical resection of tumor (eg, sarcoma), soft tissue of hand or finger; less than 3 cm                                      | Procedure | CPT-4     |
| 26118 | Radical resection of tumor (eg, sarcoma), soft tissue of hand or finger; 3 cm or greater                                     | Procedure | CPT-4     |
| 26250 | Radical resection of tumor, metacarpal                                                                                       | Procedure | CPT-4     |
| 26255 | Radical resection, metacarpal (eg, tumor); with autograft (includes obtaining graft)                                         | Procedure | CPT-4     |
| 26260 | Radical resection of tumor, proximal or middle phalanx of finger                                                             | Procedure | CPT-4     |
| 26261 | Radical resection, proximal or middle phalanx of finger (eg, tumor); with autograft (includes obtaining graft)               | Procedure | CPT-4     |
| 26262 | Radical resection of tumor, distal phalanx of finger                                                                         | Procedure | CPT-4     |
| 27043 | Excision, tumor, soft tissue of pelvis and hip area, subcutaneous; 3 cm or greater                                           | Procedure | CPT-4     |
| 27045 | Excision, tumor, soft tissue of pelvis and hip area, subfascial (eg, intramuscular); 5 cm or greater                         | Procedure | CPT-4     |
| 27047 | Excision, tumor, soft tissue of pelvis and hip area, subcutaneous; less than 3 cm                                            | Procedure | CPT-4     |
| 27048 | Excision, tumor, soft tissue of pelvis and hip area, subfascial (eg, intramuscular); less than 5 cm                          | Procedure | CPT-4     |
| 27049 | Radical resection of tumor (eg, sarcoma), soft tissue of pelvis and hip area; less than 5 cm                                 | Procedure | CPT-4     |
| 27059 | Radical resection of tumor (eg, sarcoma), soft tissue of pelvis and hip area; 5 cm or greater                                | Procedure | CPT-4     |
| 27075 | Radical resection of tumor; wing of ilium, 1 pubic or ischial ramus or symphysis pubis                                       | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                  | Code      |           |
|-------|--------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                              | Category  | Code Type |
| 27076 | Radical resection of tumor; ilium, including acetabulum, both pubic rami, or ischium and acetabulum          | Procedure | CPT-4     |
| 27077 | Radical resection of tumor; innominate bone, total                                                           | Procedure | CPT-4     |
| 27078 | Radical resection of tumor; ischial tuberosity and greater trochanter of femur                               | Procedure | CPT-4     |
| 27079 | Radical resection of tumor or infection; ischial tuberosity and greater trochanter of femur, with skin flaps | Procedure | CPT-4     |
| 273.3 | Macroglobulinemia                                                                                            | Diagnosis | ICD-9-CM  |
| 27327 | Excision, tumor, soft tissue of thigh or knee area, subcutaneous; less than 3 cm                             | Procedure | CPT-4     |
| 27328 | Excision, tumor, soft tissue of thigh or knee area, subfascial (eg, intramuscular); less than 5 cm           | Procedure | CPT-4     |
| 27329 | Radical resection of tumor (eg, sarcoma), soft tissue of thigh or knee area; less than 5 cm                  | Procedure | CPT-4     |
| 27337 | Excision, tumor, soft tissue of thigh or knee area, subcutaneous; 3 cm or greater                            | Procedure | CPT-4     |
| 27339 | Excision, tumor, soft tissue of thigh or knee area, subfascial (eg, intramuscular); 5 cm or greater          | Procedure | CPT-4     |
| 27364 | Radical resection of tumor (eg, sarcoma), soft tissue of thigh or knee area; 5 cm or greater                 | Procedure | CPT-4     |
| 27365 | Radical resection of tumor, femur or knee                                                                    | Procedure | CPT-4     |
| 27615 | Radical resection of tumor (eg, sarcoma), soft tissue of leg or ankle area; less than 5 cm                   | Procedure | CPT-4     |
| 27616 | Radical resection of tumor (eg, sarcoma), soft tissue of leg or ankle area; 5 cm or greater                  | Procedure | CPT-4     |
| 27618 | Excision, tumor, soft tissue of leg or ankle area, subcutaneous; less than 3 cm                              | Procedure | CPT-4     |
| 27619 | Excision, tumor, soft tissue of leg or ankle area, subfascial (eg, intramuscular); less than 5 cm            | Procedure | CPT-4     |
| 27632 | Excision, tumor, soft tissue of leg or ankle area, subcutaneous; 3 cm or greater                             | Procedure | CPT-4     |
| 27634 | Excision, tumor, soft tissue of leg or ankle area, subfascial (eg, intramuscular); 5 cm or greater           | Procedure | CPT-4     |
| 27645 | Radical resection of tumor; tibia                                                                            | Procedure | CPT-4     |
| 27646 | Radical resection of tumor; fibula                                                                           | Procedure | CPT-4     |
| 27647 | Radical resection of tumor; talus or calcaneus                                                               | Procedure | CPT-4     |
| 28039 | Excision, tumor, soft tissue of foot or toe, subcutaneous; 1.5 cm or greater                                 | Procedure | CPT-4     |
| 28041 | Excision, tumor, soft tissue of foot or toe, subfascial (eg, intramuscular); 1.5 cm or greater               | Procedure | CPT-4     |
| 28043 | Excision, tumor, soft tissue of foot or toe, subcutaneous; less than 1.5 cm                                  | Procedure | CPT-4     |
| 28045 | Excision, tumor, soft tissue of foot or toe, subfascial (eg, intramuscular); less than 1.5 cm                | Procedure | CPT-4     |
| 28046 | Radical resection of tumor (eg, sarcoma), soft tissue of foot or toe; less than 3 cm                         | Procedure | CPT-4     |
| 28047 | Radical resection of tumor (eg, sarcoma), soft tissue of foot or toe; 3 cm or greater                        | Procedure | CPT-4     |
| 28171 | Radical resection of tumor; tarsal (except talus or calcaneus)                                               | Procedure | CPT-4     |
| 28173 | Radical resection of tumor; metatarsal                                                                       | Procedure | CPT-4     |
| 28175 | Radical resection of tumor; phalanx of toe                                                                   | Procedure | CPT-4     |
| 284.2 | Myelophthisis                                                                                                | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                                                                                                                                        | Code      |           |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                                                                                                                    | Category  | Code Type |
| 289.83 | Myelofibrosis                                                                                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| 31300  | Laryngotomy (thyrotomy, laryngofissure), with removal of tumor or laryngocele, cordectomy                                                                                                                                          | Procedure | CPT-4     |
| 31540  | Laryngoscopy, direct, operative, with excision of tumor and/or stripping of vocal cords or epiglottis;                                                                                                                             | Procedure | CPT-4     |
| 31541  | Laryngoscopy, direct, operative, with excision of tumor and/or stripping of vocal cords or epiglottis; with operating microscope or telescope                                                                                      | Procedure | CPT-4     |
| 31640  | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with excision of tumor                                                                                                                           | Procedure | CPT-4     |
| 31641  | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with destruction of tumor or relief of stenosis by any method other than excision (eg, laser therapy, cryotherapy)                               | Procedure | CPT-4     |
| 31785  | Excision of tracheal tumor or carcinoma; cervical                                                                                                                                                                                  | Procedure | CPT-4     |
| 31786  | Excision of tracheal tumor or carcinoma; thoracic                                                                                                                                                                                  | Procedure | CPT-4     |
| 32503  | Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; without chest wall reconstruction(s)                                           | Procedure | CPT-4     |
| 32504  | Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; with chest wall reconstruction                                                 | Procedure | CPT-4     |
| 3250F  | Specimen site other than anatomic location of primary tumor (PATH)                                                                                                                                                                 | Procedure | CPT-2     |
| 3260F  | pT category (primary tumor), pN category (regional lymph nodes), and histologic grade documented in pathology report (PATH)                                                                                                        | Procedure | CPT-2     |
| 32661  | Thoracoscopy, surgical; with excision of pericardial cyst, tumor, or mass                                                                                                                                                          | Procedure | CPT-4     |
| 32662  | Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass                                                                                                                                                          | Procedure | CPT-4     |
| 3268F  | Prostate-specific antigen (PSA), and primary tumor (T) stage, and Gleason score documented prior to initiation of treatment (PRCA)                                                                                                 | Procedure | CPT-2     |
| 3269F  | Bone scan performed prior to initiation of treatment or at any time since diagnosis of prostate cancer (PRCA)                                                                                                                      | Procedure | CPT-2     |
| 3270F  | Bone scan not performed prior to initiation of treatment nor at any time since diagnosis of prostate cancer (PRCA)                                                                                                                 | Procedure | CPT-2     |
| 32994  | Ablation therapy for reduction or eradication of 1 or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, including imaging guidance when performed, unilateral; cryoablation   | Procedure | CPT-4     |
| 32998  | Ablation therapy for reduction or eradication of 1 or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, including imaging guidance when performed, unilateral; radiofrequency | Procedure | CPT-4     |
| 3301F  | Cancer stage documented in medical record as metastatic and reviewed (ONC)                                                                                                                                                         | Procedure | CPT-2     |
| 3302F  | AJCC Cancer Stage 0, documented (ONC)1, (ML)5                                                                                                                                                                                      | Procedure | CPT-2     |
| 3303F  | AJCC Cancer Stage IA, documented (ONC)1, (ML)5                                                                                                                                                                                     | Procedure | CPT-2     |
| 3304F  | AJCC Cancer Stage IB, documented (ONC)1, (ML)5                                                                                                                                                                                     | Procedure | CPT-2     |
| 33050  | Resection of pericardial cyst or tumor                                                                                                                                                                                             | Procedure | CPT-4     |
| 3305F  | AJCC Cancer Stage IC, documented (ONC)1, (ML)5                                                                                                                                                                                     | Procedure | CPT-2     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                       | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                   | Category  | Code Type |
| 3306F | AJCC Cancer Stage IIA, documented (ONC)1, (ML)5                                                                                                                                                   | Procedure | CPT-2     |
| 3307F | AJCC Cancer Stage IIB, documented (ONC)1, (ML)5                                                                                                                                                   | Procedure | CPT-2     |
| 3308F | AJCC Cancer Stage IIC, documented (ONC)1, (ML)5                                                                                                                                                   | Procedure | CPT-2     |
| 3309F | AJCC Cancer Stage IIIA, documented (ONC)1, (ML)5                                                                                                                                                  | Procedure | CPT-2     |
| 3310F | AJCC Cancer Stage IIIB, documented (ONC)1, (ML)5                                                                                                                                                  | Procedure | CPT-2     |
| 3311F | AJCC Cancer Stage IIIC, documented (ONC)1, (ML)5                                                                                                                                                  | Procedure | CPT-2     |
| 33120 | Excision of intracardiac tumor, resection with cardiopulmonary bypass                                                                                                                             | Procedure | CPT-4     |
| 3312F | AJCC Cancer Stage IV, documented (ONC)1, (ML)5                                                                                                                                                    | Procedure | CPT-2     |
| 33130 | Resection of external cardiac tumor                                                                                                                                                               | Procedure | CPT-4     |
| 3313F | AJCC Cancer Stage IVB, documented (ONC)1, (ML)5                                                                                                                                                   | Procedure | CPT-2     |
| 3314F | AJCC Cancer Stage IVC, documented (ONC)1, (ML)5                                                                                                                                                   | Procedure | CPT-2     |
| 3315F | Estrogen receptor (ER) or progesterone receptor (PR) positive breast cancer (ONC)                                                                                                                 | Procedure | CPT-2     |
| 3316F | Estrogen receptor (ER) and progesterone receptor (PR) negative breast cancer (ONC)                                                                                                                | Procedure | CPT-2     |
| 3317F | Pathology report confirming malignancy documented in the medical record and reviewed prior to the initiation of chemotherapy (ONC)                                                                | Procedure | CPT-2     |
| 3318F | Pathology report confirming malignancy documented in the medical record and reviewed prior to the initiation of radiation therapy (ONC)                                                           | Procedure | CPT-2     |
| 3321F | AJCC Cancer Stage 0 or IA Melanoma, documented (ML)                                                                                                                                               | Procedure | CPT-2     |
| 3323F | Clinical tumor, node and metastases (TNM) staging documented and reviewed prior to surgery (Lung/Esop Cx)                                                                                         | Procedure | CPT-2     |
| 3370F | AJCC Breast Cancer Stage 0 documented (ONC)                                                                                                                                                       | Procedure | CPT-2     |
| 3372F | AJCC Breast Cancer Stage I: T1mic, T1a or T1b (tumor size <= 1 cm) documented                                                                                                                     | Procedure | CPT-2     |
| 3374F | AJCC Breast Cancer Stage I: T1c (tumor size > 1 cm to 2 cm) documented (ONC)                                                                                                                      | Procedure | CPT-2     |
| 3376F | AJCC Breast Cancer Stage II documented (ONC)                                                                                                                                                      | Procedure | CPT-2     |
| 3378F | AJCC Breast Cancer Stage III documented (ONC)                                                                                                                                                     | Procedure | CPT-2     |
| 3380F | AJCC Breast Cancer Stage IV documented (ONC)                                                                                                                                                      | Procedure | CPT-2     |
| 3382F | AJCC colon cancer, Stage 0 documented (ONC)                                                                                                                                                       | Procedure | CPT-2     |
| 3384F | AJCC colon cancer, Stage I documented (ONC)                                                                                                                                                       | Procedure | CPT-2     |
| 3386F | AJCC colon cancer, Stage II documented (ONC)                                                                                                                                                      | Procedure | CPT-2     |
| 3388F | AJCC colon cancer, Stage III documented (ONC)                                                                                                                                                     | Procedure | CPT-2     |
| 3390F | AJCC colon cancer, Stage IV documented (ONC)                                                                                                                                                      | Procedure | CPT-2     |
| 36260 | Insertion of implantable intra-arterial infusion pump (eg, for chemotherapy of liver)                                                                                                             | Procedure | CPT-4     |
| 36488 | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, age 2 years or under | Procedure | CPT-4     |
| 36489 | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, over age 2           | Procedure | CPT-4     |
| 36490 | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, age 2 years or under      | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                                                                                                                                          | Code      |            |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                                                                                                                                      | Category  | Code Type  |
| 36491   | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, over age 2                                                                   | Procedure | CPT-4      |
| 36640   | Arterial catheterization for prolonged infusion therapy (chemotherapy), cutdown                                                                                                                                                                      | Procedure | CPT-4      |
| 36823   | Insertion of arterial and venous cannula(s) for isolated extracorporeal circulation including regional chemotherapy perfusion to an extremity, with or without hyperthermia, with removal of cannula(s) and repair of arteriotomy and venotomy sites | Procedure | CPT-4      |
| 39220   | Resection of mediastinal tumor                                                                                                                                                                                                                       | Procedure | CPT-4      |
| 3E00X05 | Introduction of Other Antineoplastic into Skin and Mucous Membranes, External Approach                                                                                                                                                               | Procedure | ICD-10-PCS |
| 3E00X0M | Introduction of Antineoplastic, Monoclonal Antibody, into Skin and Mucous Membranes, External Approach                                                                                                                                               | Procedure | ICD-10-PCS |
| 3E01305 | Introduction of Other Antineoplastic into Subcutaneous Tissue, Percutaneous Approach                                                                                                                                                                 | Procedure | ICD-10-PCS |
| 3E0130M | Introduction of Antineoplastic, Monoclonal Antibody, into Subcutaneous Tissue, Percutaneous Approach                                                                                                                                                 | Procedure | ICD-10-PCS |
| 3E02305 | Introduction of Other Antineoplastic into Muscle, Percutaneous Approach                                                                                                                                                                              | Procedure | ICD-10-PCS |
| 3E0230M | Introduction of Antineoplastic, Monoclonal Antibody, into Muscle, Percutaneous Approach                                                                                                                                                              | Procedure | ICD-10-PCS |
| 3E03002 | Introduction of High-dose Interleukin-2 into Peripheral Vein, Open Approach                                                                                                                                                                          | Procedure | ICD-10-PCS |
| 3E03003 | Introduction of Low-dose Interleukin-2 into Peripheral Vein, Open Approach                                                                                                                                                                           | Procedure | ICD-10-PCS |
| 3E03005 | Introduction of Other Antineoplastic into Peripheral Vein, Open Approach                                                                                                                                                                             | Procedure | ICD-10-PCS |
| 3E0300M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Vein, Open Approach                                                                                                                                                             | Procedure | ICD-10-PCS |
| 3E0300P | Introduction of Clofarabine into Peripheral Vein, Open Approach                                                                                                                                                                                      | Procedure | ICD-10-PCS |
| 3E03302 | Introduction of High-dose Interleukin-2 into Peripheral Vein, Percutaneous Approach                                                                                                                                                                  | Procedure | ICD-10-PCS |
| 3E03303 | Introduction of Low-dose Interleukin-2 into Peripheral Vein, Percutaneous Approach                                                                                                                                                                   | Procedure | ICD-10-PCS |
| 3E03305 | Introduction of Other Antineoplastic into Peripheral Vein, Percutaneous Approach                                                                                                                                                                     | Procedure | ICD-10-PCS |
| 3E0330M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Vein, Percutaneous Approach                                                                                                                                                     | Procedure | ICD-10-PCS |
| 3E0330P | Introduction of Clofarabine into Peripheral Vein, Percutaneous Approach                                                                                                                                                                              | Procedure | ICD-10-PCS |
| 3E04002 | Introduction of High-dose Interleukin-2 into Central Vein, Open Approach                                                                                                                                                                             | Procedure | ICD-10-PCS |
| 3E04003 | Introduction of Low-dose Interleukin-2 into Central Vein, Open Approach                                                                                                                                                                              | Procedure | ICD-10-PCS |
| 3E04005 | Introduction of Other Antineoplastic into Central Vein, Open Approach                                                                                                                                                                                | Procedure | ICD-10-PCS |
| 3E0400M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Vein, Open Approach                                                                                                                                                                | Procedure | ICD-10-PCS |
| 3E0400P | Introduction of Clofarabine into Central Vein, Open Approach                                                                                                                                                                                         | Procedure | ICD-10-PCS |
| 3E04302 | Introduction of High-dose Interleukin-2 into Central Vein, Percutaneous Approach                                                                                                                                                                     | Procedure | ICD-10-PCS |
| 3E04303 | Introduction of Low-dose Interleukin-2 into Central Vein, Percutaneous Approach                                                                                                                                                                      | Procedure | ICD-10-PCS |
| 3E04305 | Introduction of Other Antineoplastic into Central Vein, Percutaneous Approach                                                                                                                                                                        | Procedure | ICD-10-PCS |
| 3E0430M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Vein, Percutaneous Approach                                                                                                                                                        | Procedure | ICD-10-PCS |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                        | Code      |            |
|---------|----------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                    | Category  | Code Type  |
| 3E0430P | Introduction of Clofarabine into Central Vein, Percutaneous Approach                               | Procedure | ICD-10-PCS |
| 3E05002 | Introduction of High-dose Interleukin-2 into Peripheral Artery, Open Approach                      | Procedure | ICD-10-PCS |
| 3E05003 | Introduction of Low-dose Interleukin-2 into Peripheral Artery, Open Approach                       | Procedure | ICD-10-PCS |
| 3E05005 | Introduction of Other Antineoplastic into Peripheral Artery, Open Approach                         | Procedure | ICD-10-PCS |
| 3E0500M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Artery, Open Approach         | Procedure | ICD-10-PCS |
| 3E0500P | Introduction of Clofarabine into Peripheral Artery, Open Approach                                  | Procedure | ICD-10-PCS |
| 3E05302 | Introduction of High-dose Interleukin-2 into Peripheral Artery, Percutaneous Approach              | Procedure | ICD-10-PCS |
| 3E05303 | Introduction of Low-dose Interleukin-2 into Peripheral Artery, Percutaneous Approach               | Procedure | ICD-10-PCS |
| 3E05305 | Introduction of Other Antineoplastic into Peripheral Artery, Percutaneous Approach                 | Procedure | ICD-10-PCS |
| 3E0530M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Artery, Percutaneous Approach | Procedure | ICD-10-PCS |
| 3E0530P | Introduction of Clofarabine into Peripheral Artery, Percutaneous Approach                          | Procedure | ICD-10-PCS |
| 3E06002 | Introduction of High-dose Interleukin-2 into Central Artery, Open Approach                         | Procedure | ICD-10-PCS |
| 3E06003 | Introduction of Low-dose Interleukin-2 into Central Artery, Open Approach                          | Procedure | ICD-10-PCS |
| 3E06005 | Introduction of Other Antineoplastic into Central Artery, Open Approach                            | Procedure | ICD-10-PCS |
| 3E0600M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Artery, Open Approach            | Procedure | ICD-10-PCS |
| 3E0600P | Introduction of Clofarabine into Central Artery, Open Approach                                     | Procedure | ICD-10-PCS |
| 3E06302 | Introduction of High-dose Interleukin-2 into Central Artery, Percutaneous Approach                 | Procedure | ICD-10-PCS |
| 3E06303 | Introduction of Low-dose Interleukin-2 into Central Artery, Percutaneous Approach                  | Procedure | ICD-10-PCS |
| 3E06305 | Introduction of Other Antineoplastic into Central Artery, Percutaneous Approach                    | Procedure | ICD-10-PCS |
| 3E0630M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Artery, Percutaneous Approach    | Procedure | ICD-10-PCS |
| 3E0630P | Introduction of Clofarabine into Central Artery, Percutaneous Approach                             | Procedure | ICD-10-PCS |
| 3E09305 | Introduction of Other Antineoplastic into Nose, Percutaneous Approach                              | Procedure | ICD-10-PCS |
| 3E0930M | Introduction of Antineoplastic, Monoclonal Antibody, into Nose, Percutaneous Approach              | Procedure | ICD-10-PCS |
| 3E09705 | Introduction of Other Antineoplastic into Nose, Via Natural or Artificial Opening                  | Procedure | ICD-10-PCS |
| 3E0970M | Introduction of Antineoplastic, Monoclonal Antibody, into Nose, Via Natural or Artificial Opening  | Procedure | ICD-10-PCS |
| 3E09X05 | Introduction of Other Antineoplastic into Nose, External Approach                                  | Procedure | ICD-10-PCS |
| 3E09X0M | Introduction of Antineoplastic, Monoclonal Antibody, into Nose, External Approach                  | Procedure | ICD-10-PCS |
| 3E0A305 | Introduction of Other Antineoplastic into Bone Marrow, Percutaneous Approach                       | Procedure | ICD-10-PCS |
| 3E0A30M | Introduction of Antineoplastic, Monoclonal Antibody, into Bone Marrow, Percutaneous Approach       | Procedure | ICD-10-PCS |
| 3E0B305 | Introduction of Other Antineoplastic into Ear, Percutaneous Approach                               | Procedure | ICD-10-PCS |
| 3E0B30M | Introduction of Antineoplastic, Monoclonal Antibody, into Ear, Percutaneous Approach               | Procedure | ICD-10-PCS |
| 3E0B705 | Introduction of Other Antineoplastic into Ear, Via Natural or Artificial Opening                   | Procedure | ICD-10-PCS |
| 3E0B70M | Introduction of Antineoplastic, Monoclonal Antibody, into Ear, Via Natural or Artificial Opening   | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                    | Code      |            |
|---------|--------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                | Category  | Code Type  |
| 3E0BX05 | Introduction of Other Antineoplastic into Ear, External Approach                                                               | Procedure | ICD-10-PCS |
| 3E0BX0M | Introduction of Antineoplastic, Monoclonal Antibody, into Ear, External Approach                                               | Procedure | ICD-10-PCS |
| 3E0C305 | Introduction of Other Antineoplastic into Eye, Percutaneous Approach                                                           | Procedure | ICD-10-PCS |
| 3E0C30M | Introduction of Antineoplastic, Monoclonal Antibody, into Eye, Percutaneous Approach                                           | Procedure | ICD-10-PCS |
| 3E0C705 | Introduction of Other Antineoplastic into Eye, Via Natural or Artificial Opening                                               | Procedure | ICD-10-PCS |
| 3E0C70M | Introduction of Antineoplastic, Monoclonal Antibody, into Eye, Via Natural or Artificial Opening                               | Procedure | ICD-10-PCS |
| 3E0CX05 | Introduction of Other Antineoplastic into Eye, External Approach                                                               | Procedure | ICD-10-PCS |
| 3E0CX0M | Introduction of Antineoplastic, Monoclonal Antibody, into Eye, External Approach                                               | Procedure | ICD-10-PCS |
| 3E0D305 | Introduction of Other Antineoplastic into Mouth and Pharynx, Percutaneous Approach                                             | Procedure | ICD-10-PCS |
| 3E0D30M | Introduction of Antineoplastic, Monoclonal Antibody, into Mouth and Pharynx, Percutaneous Approach                             | Procedure | ICD-10-PCS |
| 3E0D705 | Introduction of Other Antineoplastic into Mouth and Pharynx, Via Natural or Artificial Opening                                 | Procedure | ICD-10-PCS |
| 3E0D70M | Introduction of Antineoplastic, Monoclonal Antibody, into Mouth and Pharynx, Via Natural or Artificial Opening                 | Procedure | ICD-10-PCS |
| 3E0DX05 | Introduction of Other Antineoplastic into Mouth and Pharynx, External Approach                                                 | Procedure | ICD-10-PCS |
| 3E0DX0M | Introduction of Antineoplastic, Monoclonal Antibody, into Mouth and Pharynx, External Approach                                 | Procedure | ICD-10-PCS |
| 3E0E305 | Introduction of Other Antineoplastic into Products of Conception, Percutaneous Approach                                        | Procedure | ICD-10-PCS |
| 3E0E30M | Introduction of Antineoplastic, Monoclonal Antibody, into Products of Conception, Percutaneous Approach                        | Procedure | ICD-10-PCS |
| 3E0E705 | Introduction of Other Antineoplastic into Products of Conception, Via Natural or Artificial Opening                            | Procedure | ICD-10-PCS |
| 3E0E70M | Introduction of Antineoplastic, Monoclonal Antibody, into Products of Conception, Via Natural or Artificial Opening            | Procedure | ICD-10-PCS |
| 3E0E805 | Introduction of Other Antineoplastic into Products of Conception, Via Natural or Artificial Opening Endoscopic                 | Procedure | ICD-10-PCS |
| 3E0E80M | Introduction of Antineoplastic, Monoclonal Antibody, into Products of Conception, Via Natural or Artificial Opening Endoscopic | Procedure | ICD-10-PCS |
| 3E0F305 | Introduction of Other Antineoplastic into Respiratory Tract, Percutaneous Approach                                             | Procedure | ICD-10-PCS |
| 3E0F30M | Introduction of Antineoplastic, Monoclonal Antibody, into Respiratory Tract, Percutaneous Approach                             | Procedure | ICD-10-PCS |
| 3E0F705 | Introduction of Other Antineoplastic into Respiratory Tract, Via Natural or Artificial Opening                                 | Procedure | ICD-10-PCS |
| 3E0F70M | Introduction of Antineoplastic, Monoclonal Antibody, into Respiratory Tract, Via Natural or Artificial Opening                 | Procedure | ICD-10-PCS |
| 3E0F805 | Introduction of Other Antineoplastic into Respiratory Tract, Via Natural or Artificial Opening Endoscopic                      | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                          | Code      |            |
|---------|--------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                      | Category  | Code Type  |
| 3E0F80M | Introduction of Antineoplastic, Monoclonal Antibody, into Respiratory Tract, Via Natural or Artificial Opening Endoscopic            | Procedure | ICD-10-PCS |
| 3E0G305 | Introduction of Other Antineoplastic into Upper GI, Percutaneous Approach                                                            | Procedure | ICD-10-PCS |
| 3E0G30M | Introduction of Antineoplastic, Monoclonal Antibody, into Upper GI, Percutaneous Approach                                            | Procedure | ICD-10-PCS |
| 3E0G705 | Introduction of Other Antineoplastic into Upper GI, Via Natural or Artificial Opening                                                | Procedure | ICD-10-PCS |
| 3E0G70M | Introduction of Antineoplastic, Monoclonal Antibody, into Upper GI, Via Natural or Artificial Opening                                | Procedure | ICD-10-PCS |
| 3E0G805 | Introduction of Other Antineoplastic into Upper GI, Via Natural or Artificial Opening Endoscopic                                     | Procedure | ICD-10-PCS |
| 3E0G80M | Introduction of Antineoplastic, Monoclonal Antibody, into Upper GI, Via Natural or Artificial Opening Endoscopic                     | Procedure | ICD-10-PCS |
| 3E0H305 | Introduction of Other Antineoplastic into Lower GI, Percutaneous Approach                                                            | Procedure | ICD-10-PCS |
| 3E0H30M | Introduction of Antineoplastic, Monoclonal Antibody, into Lower GI, Percutaneous Approach                                            | Procedure | ICD-10-PCS |
| 3E0H705 | Introduction of Other Antineoplastic into Lower GI, Via Natural or Artificial Opening                                                | Procedure | ICD-10-PCS |
| 3E0H70M | Introduction of Antineoplastic, Monoclonal Antibody, into Lower GI, Via Natural or Artificial Opening                                | Procedure | ICD-10-PCS |
| 3E0H805 | Introduction of Other Antineoplastic into Lower GI, Via Natural or Artificial Opening Endoscopic                                     | Procedure | ICD-10-PCS |
| 3E0H80M | Introduction of Antineoplastic, Monoclonal Antibody, into Lower GI, Via Natural or Artificial Opening Endoscopic                     | Procedure | ICD-10-PCS |
| 3E0J305 | Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Percutaneous Approach                                        | Procedure | ICD-10-PCS |
| 3E0J30M | Introduction of Antineoplastic, Monoclonal Antibody, into Biliary and Pancreatic Tract, Percutaneous Approach                        | Procedure | ICD-10-PCS |
| 3E0J705 | Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Via Natural or Artificial Opening                            | Procedure | ICD-10-PCS |
| 3E0J70M | Introduction of Antineoplastic, Monoclonal Antibody, into Biliary and Pancreatic Tract, Via Natural or Artificial Opening            | Procedure | ICD-10-PCS |
| 3E0J805 | Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Via Natural or Artificial Opening Endoscopic                 | Procedure | ICD-10-PCS |
| 3E0J80M | Introduction of Antineoplastic, Monoclonal Antibody, into Biliary and Pancreatic Tract, Via Natural or Artificial Opening Endoscopic | Procedure | ICD-10-PCS |
| 3E0K305 | Introduction of Other Antineoplastic into Genitourinary Tract, Percutaneous                                                          | Procedure | ICD-10-PCS |
| 3E0K30M | Introduction of Antineoplastic, Monoclonal Antibody, into Genitourinary Tract, Percutaneous Approach                                 | Procedure | ICD-10-PCS |
| 3E0K705 | Introduction of Other Antineoplastic into Genitourinary Tract, Via Natural or Artificial Opening                                     | Procedure | ICD-10-PCS |
| 3E0K70M | Introduction of Antineoplastic, Monoclonal Antibody, into Genitourinary Tract, Via Natural or Artificial Opening                     | Procedure | ICD-10-PCS |
| 3E0K805 | Introduction of Other Antineoplastic into Genitourinary Tract, Via Natural or Artificial Opening Endoscopic                          | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                 | Code      |            |
|---------|-----------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                             | Category  | Code Type  |
| 3E0K80M | Introduction of Antineoplastic, Monoclonal Antibody, into Genitourinary Tract, Via Natural or Artificial Opening Endoscopic | Procedure | ICD-10-PCS |
| 3E0L305 | Introduction of Other Antineoplastic into Pleural Cavity, Percutaneous Approach                                             | Procedure | ICD-10-PCS |
| 3E0L30M | Introduction of Antineoplastic, Monoclonal Antibody, into Pleural Cavity, Percutaneous Approach                             | Procedure | ICD-10-PCS |
| 3E0L705 | Introduction of Other Antineoplastic into Pleural Cavity, Via Natural or Artificial Opening                                 | Procedure | ICD-10-PCS |
| 3E0L70M | Introduction of Antineoplastic, Monoclonal Antibody, into Pleural Cavity, Via Natural or Artificial Opening                 | Procedure | ICD-10-PCS |
| 3E0M305 | Introduction of Other Antineoplastic into Peritoneal Cavity, Percutaneous Approach                                          | Procedure | ICD-10-PCS |
| 3E0M30M | Introduction of Antineoplastic, Monoclonal Antibody, into Peritoneal Cavity, Percutaneous Approach                          | Procedure | ICD-10-PCS |
| 3E0M705 | Introduction of Other Antineoplastic into Peritoneal Cavity, Via Natural or Artificial Opening                              | Procedure | ICD-10-PCS |
| 3E0M70M | Introduction of Antineoplastic, Monoclonal Antibody, into Peritoneal Cavity, Via Natural or Artificial Opening              | Procedure | ICD-10-PCS |
| 3E0N305 | Introduction of Other Antineoplastic into Male Reproductive, Percutaneous Approach                                          | Procedure | ICD-10-PCS |
| 3E0N30M | Introduction of Antineoplastic, Monoclonal Antibody, into Male Reproductive, Percutaneous Approach                          | Procedure | ICD-10-PCS |
| 3E0N705 | Introduction of Other Antineoplastic into Male Reproductive, Via Natural or Artificial Opening                              | Procedure | ICD-10-PCS |
| 3E0N70M | Introduction of Antineoplastic, Monoclonal Antibody, into Male Reproductive, Via Natural or Artificial Opening              | Procedure | ICD-10-PCS |
| 3E0N805 | Introduction of Other Antineoplastic into Male Reproductive, Via Natural or Artificial Opening Endoscopic                   | Procedure | ICD-10-PCS |
| 3E0N80M | Introduction of Antineoplastic, Monoclonal Antibody, into Male Reproductive, Via Natural or Artificial Opening Endoscopic   | Procedure | ICD-10-PCS |
| 3E0P305 | Introduction of Other Antineoplastic into Female Reproductive, Percutaneous Approach                                        | Procedure | ICD-10-PCS |
| 3E0P30M | Introduction of Antineoplastic, Monoclonal Antibody, into Female Reproductive, Percutaneous Approach                        | Procedure | ICD-10-PCS |
| 3E0P705 | Introduction of Other Antineoplastic into Female Reproductive, Via Natural or Artificial Opening                            | Procedure | ICD-10-PCS |
| 3E0P70M | Introduction of Antineoplastic, Monoclonal Antibody, into Female Reproductive, Via Natural or Artificial Opening            | Procedure | ICD-10-PCS |
| 3E0P805 | Introduction of Other Antineoplastic into Female Reproductive, Via Natural or Artificial Opening Endoscopic                 | Procedure | ICD-10-PCS |
| 3E0P80M | Introduction of Antineoplastic, Monoclonal Antibody, into Female Reproductive, Via Natural or Artificial Opening Endoscopic | Procedure | ICD-10-PCS |
| 3E0Q005 | Introduction of Other Antineoplastic into Cranial Cavity and Brain, Open Approach                                           | Procedure | ICD-10-PCS |
| 3E0Q00M | Introduction of Antineoplastic, Monoclonal Antibody, into Cranial Cavity and Brain, Open Approach                           | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                           | Code      |            |
|---------|-----------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                       | Category  | Code Type  |
| 3EQQ305 | Introduction of Other Antineoplastic into Cranial Cavity and Brain, Percutaneous Approach                             | Procedure | ICD-10-PCS |
| 3EQQ30M | Introduction of Antineoplastic, Monoclonal Antibody, into Cranial Cavity and Brain, Percutaneous Approach             | Procedure | ICD-10-PCS |
| 3EQQ705 | Introduction of Other Antineoplastic into Cranial Cavity and Brain, Via Natural or Artificial Opening                 | Procedure | ICD-10-PCS |
| 3EQQ70M | Introduction of Antineoplastic, Monoclonal Antibody, into Cranial Cavity and Brain, Via Natural or Artificial Opening | Procedure | ICD-10-PCS |
| 3EOR302 | Introduction of High-dose Interleukin-2 into Spinal Canal, Percutaneous Approach                                      | Procedure | ICD-10-PCS |
| 3EOR303 | Introduction of Low-dose Interleukin-2 into Spinal Canal, Percutaneous Approach                                       | Procedure | ICD-10-PCS |
| 3EOR305 | Introduction of Other Antineoplastic into Spinal Canal, Percutaneous Approach                                         | Procedure | ICD-10-PCS |
| 3EOR30M | Introduction of Antineoplastic, Monoclonal Antibody, into Spinal Canal, Percutaneous Approach                         | Procedure | ICD-10-PCS |
| 3EOS302 | Introduction of High-dose Interleukin-2 into Epidural Space, Percutaneous Approach                                    | Procedure | ICD-10-PCS |
| 3EOS303 | Introduction of Low-dose Interleukin-2 into Epidural Space, Percutaneous Approach                                     | Procedure | ICD-10-PCS |
| 3EOS305 | Introduction of Other Antineoplastic into Epidural Space, Percutaneous Approach                                       | Procedure | ICD-10-PCS |
| 3EOS30M | Introduction of Antineoplastic, Monoclonal Antibody, into Epidural Space, Percutaneous Approach                       | Procedure | ICD-10-PCS |
| 3EOU305 | Introduction of Other Antineoplastic into Joints, Percutaneous Approach                                               | Procedure | ICD-10-PCS |
| 3EOU30M | Introduction of Antineoplastic, Monoclonal Antibody, into Joints, Percutaneous Approach                               | Procedure | ICD-10-PCS |
| 3EOV305 | Introduction of Other Antineoplastic into Bones, Percutaneous Approach                                                | Procedure | ICD-10-PCS |
| 3EOV30M | Introduction of Antineoplastic, Monoclonal Antibody, into Bones, Percutaneous Approach                                | Procedure | ICD-10-PCS |
| 3EOW305 | Introduction of Other Antineoplastic into Lymphatics, Percutaneous Approach                                           | Procedure | ICD-10-PCS |
| 3EOW30M | Introduction of Antineoplastic, Monoclonal Antibody, into Lymphatics, Percutaneous Approach                           | Procedure | ICD-10-PCS |
| 3EOY305 | Introduction of Other Antineoplastic into Pericardial Cavity, Percutaneous Approach                                   | Procedure | ICD-10-PCS |
| 3EOY30M | Introduction of Antineoplastic, Monoclonal Antibody, into Pericardial Cavity, Percutaneous Approach                   | Procedure | ICD-10-PCS |
| 3EOY705 | Introduction of Other Antineoplastic into Pericardial Cavity, Via Natural or Artificial Opening                       | Procedure | ICD-10-PCS |
| 3EOY70M | Introduction of Antineoplastic, Monoclonal Antibody, into Pericardial Cavity, Via Natural or Artificial Opening       | Procedure | ICD-10-PCS |
| 41.02   | Allogeneic bone marrow transplant with purging                                                                        | Procedure | ICD-9-CM   |
| 41.07   | Autologous hematopoietic stem cell transplant with purging                                                            | Procedure | ICD-9-CM   |
| 41.08   | Allogeneic hematopoietic stem cell transplant with purging                                                            | Procedure | ICD-9-CM   |
| 41.09   | Autologous bone marrow transplant with purging                                                                        | Procedure | ICD-9-CM   |
| 4180F   | Adjuvant chemotherapy referred, prescribed, or previously received for Stage III colon cancer (ONC)                   | Procedure | CPT-2      |
| 41825   | Excision of lesion or tumor (except listed above), dentoalveolar structures; without repair                           | Procedure | CPT-4      |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                     | Code      |           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                 | Category  | Code Type |
| 41826 | Excision of lesion or tumor (except listed above), dentoalveolar structures; with simple repair                                                                                                                                                                 | Procedure | CPT-4     |
| 41827 | Excision of lesion or tumor (except listed above), dentoalveolar structures; with complex repair                                                                                                                                                                | Procedure | CPT-4     |
| 4201F | External beam radiotherapy with or without nodal irradiation as adjuvant or salvage therapy for prostate cancer patient (PRCA)                                                                                                                                  | Procedure | CPT-2     |
| 42410 | Excision of parotid tumor or parotid gland; lateral lobe, without nerve dissection                                                                                                                                                                              | Procedure | CPT-4     |
| 42415 | Excision of parotid tumor or parotid gland; lateral lobe, with dissection and preservation of facial nerve                                                                                                                                                      | Procedure | CPT-4     |
| 42420 | Excision of parotid tumor or parotid gland; total, with dissection and preservation of facial nerve                                                                                                                                                             | Procedure | CPT-4     |
| 42425 | Excision of parotid tumor or parotid gland; total, en bloc removal with sacrifice of facial nerve                                                                                                                                                               | Procedure | CPT-4     |
| 42426 | Excision of parotid tumor or parotid gland; total, with unilateral radical neck dissection                                                                                                                                                                      | Procedure | CPT-4     |
| 43216 | Esophagoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps                                                                                                                                                | Procedure | CPT-4     |
| 43217 | Esophagoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique                                                                                                                                                   | Procedure | CPT-4     |
| 43228 | Esophagoscopy, rigid or flexible; with ablation of tumor(s), polyp(s), or other lesion(s), not amenable to removal by hot biopsy forceps, bipolar cautery or snare                                                                                              | Procedure | CPT-4     |
| 43229 | Esophagoscopy, flexible, transoral; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)                                                                                            | Procedure | CPT-4     |
| 43250 | Esophagogastroduodenoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps                                                                                                                                   | Procedure | CPT-4     |
| 43251 | Esophagogastroduodenoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique                                                                                                                                      | Procedure | CPT-4     |
| 43258 | Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique | Procedure | CPT-4     |
| 43270 | Esophagogastroduodenoscopy, flexible, transoral; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)                                                                               | Procedure | CPT-4     |
| 43272 | Endoscopic retrograde cholangiopancreatography (ERCP); with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique                                                                | Procedure | CPT-4     |
| 43278 | Endoscopic retrograde cholangiopancreatography (ERCP); with ablation of tumor(s), polyp(s), or other lesion(s), including pre- and post-dilation and guide wire passage, when performed                                                                         | Procedure | CPT-4     |
| 43611 | Excision, local; malignant tumor of stomach                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 45160 | Excision of rectal tumor by proctotomy, transsacral or transcoccygeal approach                                                                                                                                                                                  | Procedure | CPT-4     |
| 45170 | Excision of rectal tumor, transanal approach                                                                                                                                                                                                                    | Procedure | CPT-4     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                          | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                      | Category  | Code Type |
| 45171 | Excision of rectal tumor, transanal approach; not including muscularis propria (ie, partial thickness)                                                                                               | Procedure | CPT-4     |
| 45172 | Excision of rectal tumor, transanal approach; including muscularis propria (ie, full thickness)                                                                                                      | Procedure | CPT-4     |
| 45180 | EXC &/OR ELECTRODESICCATION MALIG TUMOR RECTUM                                                                                                                                                       | Procedure | CPT-4     |
| 45181 | Excision And/or Electrodesiccation Of Malignant Tumor Of                                                                                                                                             | Procedure | CPT-4     |
| 45190 | Destruction of rectal tumor (eg, electrodesiccation, electrosurgery, laser ablation, laser resection, cryosurgery) transanal approach                                                                | Procedure | CPT-4     |
| 45308 | Proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by hot biopsy forceps or bipolar cautery                                                                            | Procedure | CPT-4     |
| 45309 | Proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by snare technique                                                                                                  | Procedure | CPT-4     |
| 45315 | Proctosigmoidoscopy, rigid; with removal of multiple tumors, polyps, or other lesions by hot biopsy forceps, bipolar cautery or snare technique                                                      | Procedure | CPT-4     |
| 45320 | Proctosigmoidoscopy, rigid; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique (eg, laser)                    | Procedure | CPT-4     |
| 45333 | Sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps                                                                                                | Procedure | CPT-4     |
| 45336 | SIGMOIDOSCOPY; ABLATE TUMOR MUCOSAL LESION                                                                                                                                                           | Procedure | CPT-4     |
| 45338 | Sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique                                                                                                   | Procedure | CPT-4     |
| 45339 | Sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique                                   | Procedure | CPT-4     |
| 45346 | Sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)                                            | Procedure | CPT-4     |
| 47380 | Ablation, open, of 1 or more liver tumor(s); radiofrequency                                                                                                                                          | Procedure | CPT-4     |
| 47381 | Ablation, open, of 1 or more liver tumor(s); cryosurgical                                                                                                                                            | Procedure | CPT-4     |
| 47382 | Ablation, 1 or more liver tumor(s), percutaneous, radiofrequency                                                                                                                                     | Procedure | CPT-4     |
| 47383 | Ablation, 1 or more liver tumor(s), percutaneous, cryoablation                                                                                                                                       | Procedure | CPT-4     |
| 47710 | EXC BILE DUCT TUMOR W/REPR                                                                                                                                                                           | Procedure | CPT-4     |
| 47711 | Excision of bile duct tumor, with or without primary repair of bile duct; extrahepatic                                                                                                               | Procedure | CPT-4     |
| 47712 | Excision of bile duct tumor, with or without primary repair of bile duct; intrahepatic                                                                                                               | Procedure | CPT-4     |
| 49200 | Excision or destruction, open, intra-abdominal or retroperitoneal tumors or cysts or endometriomas;                                                                                                  | Procedure | CPT-4     |
| 49201 | Excision or destruction, open, intra-abdominal or retroperitoneal tumors or cysts or endometriomas; extensive                                                                                        | Procedure | CPT-4     |
| 49203 | Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor 5 cm diameter or less | Procedure | CPT-4     |
| 49204 | Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor 5.1-10.0 cm diameter  | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                           | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                       | Category  | Code Type |
| 49205 | Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor greater than 10.0 cm diameter                                                                                          | Procedure | CPT-4     |
| 49215 | Excision of presacral or sacrococcygeal tumor                                                                                                                                                                                                                                                         | Procedure | CPT-4     |
| 49418 | Insertion of tunneled intraperitoneal catheter (eg, dialysis, intraperitoneal chemotherapy instillation, management of ascites), complete procedure, including imaging guidance, catheter placement, contrast injection when performed, and radiological supervision and interpretation, percutaneous | Procedure | CPT-4     |
| 50562 | Renal endoscopy through established nephrostomy or pyelostomy, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with resection of tumor                                                                                                              | Procedure | CPT-4     |
| 51530 | Cystotomy; for excision of bladder tumor                                                                                                                                                                                                                                                              | Procedure | CPT-4     |
| 52234 | Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; SMALL bladder tumor(s) (0.5 up to 2.0 cm)                                                                                                                                                           | Procedure | CPT-4     |
| 52235 | Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; MEDIUM bladder tumor(s) (2.0 to 5.0 cm)                                                                                                                                                             | Procedure | CPT-4     |
| 52240 | Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; LARGE bladder tumor(s)                                                                                                                                                                              | Procedure | CPT-4     |
| 52339 | Cystourethroscopy, with ureteroscopy and/or pyeloscopy (includes dilation of the ureter and/or pyeloureteral junction by any method); with resection of tumor                                                                                                                                         | Procedure | CPT-4     |
| 52355 | Cystourethroscopy, with ureteroscopy and/or pyeloscopy; with resection of ureteral or renal pelvic tumor                                                                                                                                                                                              | Procedure | CPT-4     |
| 54530 | Orchiectomy, radical, for tumor; inguinal approach                                                                                                                                                                                                                                                    | Procedure | CPT-4     |
| 54535 | Orchiectomy, radical, for tumor; with abdominal exploration                                                                                                                                                                                                                                           | Procedure | CPT-4     |
| 57135 | Excision of vaginal cyst or tumor                                                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 58140 | Myomectomy, excision of fibroid tumor(s) of uterus, 1 to 4 intramural myoma(s) with total weight of 250 g or less and/or removal of surface myomas; abdominal approach                                                                                                                                | Procedure | CPT-4     |
| 58145 | Myomectomy, excision of fibroid tumor(s) of uterus, 1 to 4 intramural myoma(s) with total weight of 250 g or less and/or removal of surface myomas; vaginal approach                                                                                                                                  | Procedure | CPT-4     |
| 58146 | Myomectomy, excision of fibroid tumor(s) of uterus, 5 or more intramural myomas and/or intramural myomas with total weight greater than 250 g, abdominal approach                                                                                                                                     | Procedure | CPT-4     |
| 58205 | Total Hysterectomy, Extended, Corpus Cancer, Including Partial                                                                                                                                                                                                                                        | Procedure | CPT-4     |
| 58575 | Laparoscopy, surgical, total hysterectomy for resection of malignancy (tumor debulking), with omentectomy including salpingo-oophorectomy, unilateral or bilateral, when performed                                                                                                                    | Procedure | CPT-4     |
| 58952 | Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy; with radical dissection for debulking (ie, radical excision or destruction, intra-abdominal or retroperitoneal tumors)                                                   | Procedure | CPT-4     |
| 58957 | Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed;                                                                                                                            | Procedure | CPT-4     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                         | Code      |           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                     | Category  | Code Type |
| 58958 | Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed; with pelvic lymphadenectomy and limited para-aortic lymphadenectomy      | Procedure | CPT-4     |
| 60545 | Adrenalectomy, partial or complete, or exploration of adrenal gland with or without biopsy, transabdominal, lumbar or dorsal (separate procedure); with excision of adjacent retroperitoneal tumor                                                  | Procedure | CPT-4     |
| 60600 | Excision of carotid body tumor; without excision of carotid artery                                                                                                                                                                                  | Procedure | CPT-4     |
| 60605 | Excision of carotid body tumor; with excision of carotid artery                                                                                                                                                                                     | Procedure | CPT-4     |
| 61340 | Subtemporal cranial decompression (pseudotumor cerebri, slit ventricle syndrome)                                                                                                                                                                    | Procedure | CPT-4     |
| 61500 | Craniectomy; with excision of tumor or other bone lesion of skull                                                                                                                                                                                   | Procedure | CPT-4     |
| 6150F | Patient not receiving a first course of anti-TNF (tumor necrosis factor) therapy (IBD)                                                                                                                                                              | Procedure | CPT-2     |
| 61510 | Craniectomy, trephination, bone flap craniotomy; for excision of brain tumor, supratentorial, except meningioma                                                                                                                                     | Procedure | CPT-4     |
| 61517 | Implantation of brain intracavitary chemotherapy agent (List separately in addition to code for primary procedure)                                                                                                                                  | Procedure | CPT-4     |
| 61518 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; except meningioma, cerebellopontine angle tumor, or midline tumor at base of skull                                                                                      | Procedure | CPT-4     |
| 61519 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; meningioma                                                                                                                                                              | Procedure | CPT-4     |
| 61520 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; cerebellopontine angle tumor                                                                                                                                            | Procedure | CPT-4     |
| 61521 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; midline tumor at base of skull                                                                                                                                          | Procedure | CPT-4     |
| 61526 | Craniectomy, bone flap craniotomy, transtemporal (mastoid) for excision of cerebellopontine angle tumor;                                                                                                                                            | Procedure | CPT-4     |
| 61530 | Craniectomy, bone flap craniotomy, transtemporal (mastoid) for excision of cerebellopontine angle tumor; combined with middle/posterior fossa craniotomy/craniectomy                                                                                | Procedure | CPT-4     |
| 61545 | Craniotomy with elevation of bone flap; for excision of craniopharyngioma                                                                                                                                                                           | Procedure | CPT-4     |
| 61546 | Craniotomy for hypophysectomy or excision of pituitary tumor, intracranial approach                                                                                                                                                                 | Procedure | CPT-4     |
| 61548 | Hypophysectomy or excision of pituitary tumor, transnasal or transseptal approach, nonstereotactic                                                                                                                                                  | Procedure | CPT-4     |
| 61624 | Transcatheter permanent occlusion or embolization (eg, for tumor destruction, to achieve hemostasis, to occlude a vascular malformation), percutaneous, any method; central nervous system (intracranial, spinal cord)                              | Procedure | CPT-4     |
| 61626 | Transcatheter permanent occlusion or embolization (eg, for tumor destruction, to achieve hemostasis, to occlude a vascular malformation), percutaneous, any method; non-central nervous system, head or neck (extracranial, brachiocephalic branch) | Procedure | CPT-4     |
| 62164 | Neuroendoscopy, intracranial; with excision of brain tumor, including placement of external ventricular catheter for drainage                                                                                                                       | Procedure | CPT-4     |
| 62165 | Neuroendoscopy, intracranial; with excision of pituitary tumor, transnasal or trans-sphenoidal approach                                                                                                                                             | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                        | Code      |           |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                    | Category  | Code Type |
| 63101 | Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); thoracic, single segment                                                                                | Procedure | CPT-4     |
| 63102 | Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); lumbar, single segment                                                                                  | Procedure | CPT-4     |
| 63103 | Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); thoracic or lumbar, each additional segment (List separately in addition to code for primary procedure) | Procedure | CPT-4     |
| 67208 | Destruction of localized lesion of retina (eg, macular edema, tumors), 1 or more sessions; cryotherapy, diathermy                                                                                                                                                                                                  | Procedure | CPT-4     |
| 67210 | Destruction of localized lesion of retina (eg, macular edema, tumors), 1 or more sessions; photocoagulation                                                                                                                                                                                                        | Procedure | CPT-4     |
| 67218 | Destruction of localized lesion of retina (eg, macular edema, tumors), 1 or more sessions; radiation by implantation of source (includes removal of source)                                                                                                                                                        | Procedure | CPT-4     |
| 68500 | Excision of lacrimal gland (dacryoadenectomy), except for tumor; total                                                                                                                                                                                                                                             | Procedure | CPT-4     |
| 68505 | Excision of lacrimal gland (dacryoadenectomy), except for tumor; partial                                                                                                                                                                                                                                           | Procedure | CPT-4     |
| 68540 | Excision of lacrimal gland tumor; frontal approach                                                                                                                                                                                                                                                                 | Procedure | CPT-4     |
| 68550 | Excision of lacrimal gland tumor; involving osteotomy                                                                                                                                                                                                                                                              | Procedure | CPT-4     |
| 69535 | Resection temporal bone, external approach                                                                                                                                                                                                                                                                         | Procedure | CPT-4     |
| 69540 | Excision aural polyp                                                                                                                                                                                                                                                                                               | Procedure | CPT-4     |
| 69550 | Excision aural glomus tumor; transcanal                                                                                                                                                                                                                                                                            | Procedure | CPT-4     |
| 69552 | Excision aural glomus tumor; transmastoid                                                                                                                                                                                                                                                                          | Procedure | CPT-4     |
| 69554 | Excision aural glomus tumor; extended (extratemporal)                                                                                                                                                                                                                                                              | Procedure | CPT-4     |
| 69970 | Removal of tumor, temporal bone                                                                                                                                                                                                                                                                                    | Procedure | CPT-4     |
| 70557 | Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material                                                                                           | Procedure | CPT-4     |
| 70558 | Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); with contrast material(s)                                                                                           | Procedure | CPT-4     |
| 70559 | Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material(s), followed by contrast material(s) and further sequences                                | Procedure | CPT-4     |
| 78655 | RADIOPHARM IDENT EYE TUMOR                                                                                                                                                                                                                                                                                         | Procedure | CPT-4     |
| 78800 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, single area (eg, head, neck, chest, pelvis), single day imaging                                                           | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                             | Code      |           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                         | Category  | Code Type |
| 78801 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, 2 or more areas (eg, abdomen and pelvis, head and chest), 1 or more days imaging or single area imaging over 2 or more days                                                                                                                    | Procedure | CPT-4     |
| 78802 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, whole body, single day imaging                                                                                                                                                                                                                 | Procedure | CPT-4     |
| 78803 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT), single area (eg, head, neck, chest, pelvis) or acquisition, single day imaging                                                                                                                                                    | Procedure | CPT-4     |
| 78804 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, whole body, requiring 2 or more days imaging                                                                                                                                                                                                   | Procedure | CPT-4     |
| 78810 | Tumor imaging, positron emission tomography (PET), metabolic evaluation                                                                                                                                                                                                                                                                                                                                                                 | Procedure | CPT-4     |
| 78811 | Positron emission tomography (PET) imaging; limited area (eg, chest, head/neck)                                                                                                                                                                                                                                                                                                                                                         | Procedure | CPT-4     |
| 78812 | Positron emission tomography (PET) imaging; skull base to mid-thigh                                                                                                                                                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 78813 | Positron emission tomography (PET) imaging; whole body                                                                                                                                                                                                                                                                                                                                                                                  | Procedure | CPT-4     |
| 78814 | Positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization imaging; limited area (eg, chest, head/neck)                                                                                                                                                                                                                                              | Procedure | CPT-4     |
| 78815 | Positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization imaging; skull base to mid-thigh                                                                                                                                                                                                                                                          | Procedure | CPT-4     |
| 78816 | Positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization imaging; whole body                                                                                                                                                                                                                                                                       | Procedure | CPT-4     |
| 78830 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT) with concurrently acquired computed tomography (CT) transmission scan for anatomical review, localization and determination/detection of pathology, single area (eg, head, neck, chest, pelvis) or acquisition, single day imaging | Procedure | CPT-4     |
| 78831 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT), minimum 2 areas (eg, pelvis and knees, chest and abdomen) or separate acquisitions (eg, lung ventilation and perfusion), single day imaging, or single area or acquisition over 2 or more days                                    | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Category  | Code Type |
| 78832 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT) with concurrently acquired computed tomography (CT) transmission scan for anatomical review, localization and determination/detection of pathology, minimum 2 areas (eg, pelvis and knees, chest and abdomen) or separate acquisitions (eg, lung ventilation and perfusion), single day imaging, or single area or acquisition over 2 or more days | Procedure | CPT-4     |
| 78835 | Radiopharmaceutical quantification measurement(s) single area (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                                                                                               | Procedure | CPT-4     |
| 78999 | Unlisted miscellaneous procedure, diagnostic nuclear medicine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | CPT-4     |
| 96400 | Chemotherapy administration, subcutaneous or intramuscular, with or without local anesthesia                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Procedure | CPT-4     |
| 96401 | Chemotherapy administration, subcutaneous or intramuscular; non-hormonal anti-neoplastic                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Procedure | CPT-4     |
| 96402 | Chemotherapy administration, subcutaneous or intramuscular; hormonal anti-neoplastic                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | CPT-4     |
| 96405 | Chemotherapy administration; intralesional, up to and including 7 lesions                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Procedure | CPT-4     |
| 96406 | Chemotherapy administration; intralesional, more than 7 lesions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure | CPT-4     |
| 96408 | Chemotherapy administration, intravenous; push technique                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Procedure | CPT-4     |
| 96409 | Chemotherapy administration; intravenous, push technique, single or initial substance/drug                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | CPT-4     |
| 96410 | Chemotherapy administration, intravenous; infusion technique, up to one hour                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Procedure | CPT-4     |
| 96411 | Chemotherapy administration; intravenous, push technique, each additional substance/drug (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                                                                    | Procedure | CPT-4     |
| 96412 | Chemotherapy administration, intravenous; infusion technique, one to 8 hours, each additional hour (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                                                          | Procedure | CPT-4     |
| 96413 | Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure | CPT-4     |
| 96414 | Chemotherapy administration, intravenous; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump                                                                                                                                                                                                                                                                                                                                                                                 | Procedure | CPT-4     |
| 96415 | Chemotherapy administration, intravenous infusion technique; each additional hour (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | CPT-4     |
| 96416 | Chemotherapy administration, intravenous infusion technique; initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump                                                                                                                                                                                                                                                                                                                                                                         | Procedure | CPT-4     |
| 96417 | Chemotherapy administration, intravenous infusion technique; each additional sequential infusion (different substance/drug), up to 1 hour (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                   | Procedure | CPT-4     |
| 96420 | Chemotherapy administration, intra-arterial; push technique                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Procedure | CPT-4     |
| 96422 | Chemotherapy administration, intra-arterial; infusion technique, up to 1 hour                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure | CPT-4     |
| 96423 | Chemotherapy administration, intra-arterial; infusion technique, each additional hour (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                                                                       | Procedure | CPT-4     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                                                                                                                        | Code      |           |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                                                                                                    | Category  | Code Type |
| 96425  | Chemotherapy administration, intra-arterial; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump                                         | Procedure | CPT-4     |
| 96440  | Chemotherapy administration into pleural cavity, requiring and including thoracentesis                                                                                                                             | Procedure | CPT-4     |
| 96445  | Chemotherapy administration into peritoneal cavity, requiring and including peritoneocentesis                                                                                                                      | Procedure | CPT-4     |
| 96446  | Chemotherapy administration into the peritoneal cavity via indwelling port or catheter                                                                                                                             | Procedure | CPT-4     |
| 96450  | Chemotherapy administration, into CNS (eg, intrathecal), requiring and including spinal puncture                                                                                                                   | Procedure | CPT-4     |
| 96500  | Chemotherapy Injection, Intravenous, Single Premixed Agent,                                                                                                                                                        | Procedure | CPT-4     |
| 96501  | Chemotherapy Injection, Intravenous, Single Premixed Agent,                                                                                                                                                        | Procedure | CPT-4     |
| 96504  | Chemotherapy Injection, Intravenous, Multiple Premixed Agents,                                                                                                                                                     | Procedure | CPT-4     |
| 96505  | Chemotherapy Injection, Intravenous, Multiple Premixed Agents,                                                                                                                                                     | Procedure | CPT-4     |
| 96508  | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure | CPT-4     |
| 96509  | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure | CPT-4     |
| 96510  | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure | CPT-4     |
| 96511  | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure | CPT-4     |
| 96512  | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure | CPT-4     |
| 96524  | Chemotherapy Injection, Complex, Administered By Physician,                                                                                                                                                        | Procedure | CPT-4     |
| 96526  | Chemotherapy Injection, Complex, Administered By Physician,                                                                                                                                                        | Procedure | CPT-4     |
| 96535  | Chemotherapy Injection, Complex, Requiring Thoracentesis                                                                                                                                                           | Procedure | CPT-4     |
| 96538  | Chemotherapy Injection, Requiring Lumbar Puncture, Administered                                                                                                                                                    | Procedure | CPT-4     |
| 96540  | Chemotherapy Injection, Intrathecal Via Reservoir, Single Or                                                                                                                                                       | Procedure | CPT-4     |
| 96542  | Chemotherapy injection, subarachnoid or intraventricular via subcutaneous reservoir, single or multiple agents                                                                                                     | Procedure | CPT-4     |
| 96545  | Provision of chemotherapy agent                                                                                                                                                                                    | Procedure | CPT-4     |
| 96549  | Unlisted chemotherapy procedure                                                                                                                                                                                    | Procedure | CPT-4     |
| 96910  | Photochemotherapy; tar and ultraviolet B (Goeckerman treatment) or petrolatum and ultraviolet B                                                                                                                    | Procedure | CPT-4     |
| 96912  | Photochemotherapy; psoralens and ultraviolet A (PUVA)                                                                                                                                                              | Procedure | CPT-4     |
| 96913  | Photochemotherapy (Goeckerman and/or PUVA) for severe photoresponsive dermatoses requiring at least 4-8 hours of care under direct supervision of the physician (includes application of medication and dressings) | Procedure | CPT-4     |
| 99.25  | Injection or infusion of cancer chemotherapeutic substance                                                                                                                                                         | Procedure | ICD-9-CM  |
| 99.28  | Injection or infusion of biological response modifier [BRM] as an antineoplastic agent                                                                                                                             | Procedure | ICD-9-CM  |
| 99555  | Home infusion for chemotherapy, per visit                                                                                                                                                                          | Procedure | CPT-4     |
| 999.81 | Extravasation of vesicant chemotherapy                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| A4555  | Electrode/transducer for use with electrical stimulation device used for cancer treatment, replacement only                                                                                                        | Procedure | HCPCS     |
| A9545  | Iodine I-131 tositumomab, therapeutic, per treatment dose                                                                                                                                                          | Procedure | HCPCS     |
| C00    | Malignant neoplasm of lip                                                                                                                                                                                          | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                     | Code      |           |
|--------|---------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                 | Category  | Code Type |
| C00.0  | Malignant neoplasm of external upper lip                                        | Diagnosis | ICD-10-CM |
| C00.1  | Malignant neoplasm of external lower lip                                        | Diagnosis | ICD-10-CM |
| C00.2  | Malignant neoplasm of external lip, unspecified                                 | Diagnosis | ICD-10-CM |
| C00.3  | Malignant neoplasm of upper lip, inner aspect                                   | Diagnosis | ICD-10-CM |
| C00.4  | Malignant neoplasm of lower lip, inner aspect                                   | Diagnosis | ICD-10-CM |
| C00.5  | Malignant neoplasm of lip, unspecified, inner aspect                            | Diagnosis | ICD-10-CM |
| C00.6  | Malignant neoplasm of commissure of lip, unspecified                            | Diagnosis | ICD-10-CM |
| C00.8  | Malignant neoplasm of overlapping sites of lip                                  | Diagnosis | ICD-10-CM |
| C00.9  | Malignant neoplasm of lip, unspecified                                          | Diagnosis | ICD-10-CM |
| C01    | Malignant neoplasm of base of tongue                                            | Diagnosis | ICD-10-CM |
| C02    | Malignant neoplasm of other and unspecified parts of tongue                     | Diagnosis | ICD-10-CM |
| C02.0  | Malignant neoplasm of dorsal surface of tongue                                  | Diagnosis | ICD-10-CM |
| C02.1  | Malignant neoplasm of border of tongue                                          | Diagnosis | ICD-10-CM |
| C02.2  | Malignant neoplasm of ventral surface of tongue                                 | Diagnosis | ICD-10-CM |
| C02.3  | Malignant neoplasm of anterior two-thirds of tongue, part unspecified           | Diagnosis | ICD-10-CM |
| C02.4  | Malignant neoplasm of lingual tonsil                                            | Diagnosis | ICD-10-CM |
| C02.8  | Malignant neoplasm of overlapping sites of tongue                               | Diagnosis | ICD-10-CM |
| C02.9  | Malignant neoplasm of tongue, unspecified                                       | Diagnosis | ICD-10-CM |
| C03    | Malignant neoplasm of gum                                                       | Diagnosis | ICD-10-CM |
| C03.0  | Malignant neoplasm of upper gum                                                 | Diagnosis | ICD-10-CM |
| C03.1  | Malignant neoplasm of lower gum                                                 | Diagnosis | ICD-10-CM |
| C03.9  | Malignant neoplasm of gum, unspecified                                          | Diagnosis | ICD-10-CM |
| C04    | Malignant neoplasm of floor of mouth                                            | Diagnosis | ICD-10-CM |
| C04.0  | Malignant neoplasm of anterior floor of mouth                                   | Diagnosis | ICD-10-CM |
| C04.1  | Malignant neoplasm of lateral floor of mouth                                    | Diagnosis | ICD-10-CM |
| C04.8  | Malignant neoplasm of overlapping sites of floor of mouth                       | Diagnosis | ICD-10-CM |
| C04.9  | Malignant neoplasm of floor of mouth, unspecified                               | Diagnosis | ICD-10-CM |
| C05    | Malignant neoplasm of palate                                                    | Diagnosis | ICD-10-CM |
| C05.0  | Malignant neoplasm of hard palate                                               | Diagnosis | ICD-10-CM |
| C05.1  | Malignant neoplasm of soft palate                                               | Diagnosis | ICD-10-CM |
| C05.2  | Malignant neoplasm of uvula                                                     | Diagnosis | ICD-10-CM |
| C05.8  | Malignant neoplasm of overlapping sites of palate                               | Diagnosis | ICD-10-CM |
| C05.9  | Malignant neoplasm of palate, unspecified                                       | Diagnosis | ICD-10-CM |
| C06    | Malignant neoplasm of other and unspecified parts of mouth                      | Diagnosis | ICD-10-CM |
| C06.0  | Malignant neoplasm of cheek mucosa                                              | Diagnosis | ICD-10-CM |
| C06.1  | Malignant neoplasm of vestibule of mouth                                        | Diagnosis | ICD-10-CM |
| C06.2  | Malignant neoplasm of retromolar area                                           | Diagnosis | ICD-10-CM |
| C06.8  | Malignant neoplasm of overlapping sites of other and unspecified parts of mouth | Diagnosis | ICD-10-CM |
| C06.80 | Malignant neoplasm of overlapping sites of unspecified parts of mouth           | Diagnosis | ICD-10-CM |
| C06.89 | Malignant neoplasm of overlapping sites of other parts of mouth                 | Diagnosis | ICD-10-CM |
| C06.9  | Malignant neoplasm of mouth, unspecified                                        | Diagnosis | ICD-10-CM |
| C07    | Malignant neoplasm of parotid gland                                             | Diagnosis | ICD-10-CM |
| C08    | Malignant neoplasm of other and unspecified major salivary glands               | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                           | Code      |           |
|-------|---------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                       | Category  | Code Type |
| C08.0 | Malignant neoplasm of submandibular gland                                             | Diagnosis | ICD-10-CM |
| C08.1 | Malignant neoplasm of sublingual gland                                                | Diagnosis | ICD-10-CM |
| C08.9 | Malignant neoplasm of major salivary gland, unspecified                               | Diagnosis | ICD-10-CM |
| C09   | Malignant neoplasm of tonsil                                                          | Diagnosis | ICD-10-CM |
| C09.0 | Malignant neoplasm of tonsillar fossa                                                 | Diagnosis | ICD-10-CM |
| C09.1 | Malignant neoplasm of tonsillar pillar (anterior) (posterior)                         | Diagnosis | ICD-10-CM |
| C09.8 | Malignant neoplasm of overlapping sites of tonsil                                     | Diagnosis | ICD-10-CM |
| C09.9 | Malignant neoplasm of tonsil, unspecified                                             | Diagnosis | ICD-10-CM |
| C10   | Malignant neoplasm of oropharynx                                                      | Diagnosis | ICD-10-CM |
| C10.0 | Malignant neoplasm of vallecula                                                       | Diagnosis | ICD-10-CM |
| C10.1 | Malignant neoplasm of anterior surface of epiglottis                                  | Diagnosis | ICD-10-CM |
| C10.2 | Malignant neoplasm of lateral wall of oropharynx                                      | Diagnosis | ICD-10-CM |
| C10.3 | Malignant neoplasm of posterior wall of oropharynx                                    | Diagnosis | ICD-10-CM |
| C10.4 | Malignant neoplasm of branchial cleft                                                 | Diagnosis | ICD-10-CM |
| C10.8 | Malignant neoplasm of overlapping sites of oropharynx                                 | Diagnosis | ICD-10-CM |
| C10.9 | Malignant neoplasm of oropharynx, unspecified                                         | Diagnosis | ICD-10-CM |
| C1084 | Denileukin diftitox, 300 mcg, ontak iv                                                | Procedure | HCPCS     |
| C1086 | Temozolomide, 5 mg, temodar                                                           | Procedure | HCPCS     |
| C11   | Malignant neoplasm of nasopharynx                                                     | Diagnosis | ICD-10-CM |
| C11.0 | Malignant neoplasm of superior wall of nasopharynx                                    | Diagnosis | ICD-10-CM |
| C11.1 | Malignant neoplasm of posterior wall of nasopharynx                                   | Diagnosis | ICD-10-CM |
| C11.2 | Malignant neoplasm of lateral wall of nasopharynx                                     | Diagnosis | ICD-10-CM |
| C11.3 | Malignant neoplasm of anterior wall of nasopharynx                                    | Diagnosis | ICD-10-CM |
| C11.8 | Malignant neoplasm of overlapping sites of nasopharynx                                | Diagnosis | ICD-10-CM |
| C11.9 | Malignant neoplasm of nasopharynx, unspecified                                        | Diagnosis | ICD-10-CM |
| C1166 | Injection, cytarabine liposome, per 10 mg                                             | Procedure | HCPCS     |
| C1167 | Injection, epirubicin HCl, 2 mg                                                       | Procedure | HCPCS     |
| C1178 | Injection, busulfan, per 6 mg                                                         | Procedure | HCPCS     |
| C12   | Malignant neoplasm of pyriform sinus                                                  | Diagnosis | ICD-10-CM |
| C13   | Malignant neoplasm of hypopharynx                                                     | Diagnosis | ICD-10-CM |
| C13.0 | Malignant neoplasm of postcricoid region                                              | Diagnosis | ICD-10-CM |
| C13.1 | Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect                       | Diagnosis | ICD-10-CM |
| C13.2 | Malignant neoplasm of posterior wall of hypopharynx                                   | Diagnosis | ICD-10-CM |
| C13.8 | Malignant neoplasm of overlapping sites of hypopharynx                                | Diagnosis | ICD-10-CM |
| C13.9 | Malignant neoplasm of hypopharynx, unspecified                                        | Diagnosis | ICD-10-CM |
| C14   | Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx | Diagnosis | ICD-10-CM |
| C14.0 | Malignant neoplasm of pharynx, unspecified                                            | Diagnosis | ICD-10-CM |
| C14.2 | Malignant neoplasm of Waldeyer's ring                                                 | Diagnosis | ICD-10-CM |
| C14.8 | Malignant neoplasm of overlapping sites of lip, oral cavity and pharynx               | Diagnosis | ICD-10-CM |
| C15   | Malignant neoplasm of esophagus                                                       | Diagnosis | ICD-10-CM |
| C15.3 | Malignant neoplasm of upper third of esophagus                                        | Diagnosis | ICD-10-CM |
| C15.4 | Malignant neoplasm of middle third of esophagus                                       | Diagnosis | ICD-10-CM |
| C15.5 | Malignant neoplasm of lower third of esophagus                                        | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                            | Code      |           |
|-------|------------------------------------------------------------------------|-----------|-----------|
|       |                                                                        | Category  | Code Type |
| C15.8 | Malignant neoplasm of overlapping sites of esophagus                   | Diagnosis | ICD-10-CM |
| C15.9 | Malignant neoplasm of esophagus, unspecified                           | Diagnosis | ICD-10-CM |
| C16   | Malignant neoplasm of stomach                                          | Diagnosis | ICD-10-CM |
| C16.0 | Malignant neoplasm of cardia                                           | Diagnosis | ICD-10-CM |
| C16.1 | Malignant neoplasm of fundus of stomach                                | Diagnosis | ICD-10-CM |
| C16.2 | Malignant neoplasm of body of stomach                                  | Diagnosis | ICD-10-CM |
| C16.3 | Malignant neoplasm of pyloric antrum                                   | Diagnosis | ICD-10-CM |
| C16.4 | Malignant neoplasm of pylorus                                          | Diagnosis | ICD-10-CM |
| C16.5 | Malignant neoplasm of lesser curvature of stomach, unspecified         | Diagnosis | ICD-10-CM |
| C16.6 | Malignant neoplasm of greater curvature of stomach, unspecified        | Diagnosis | ICD-10-CM |
| C16.8 | Malignant neoplasm of overlapping sites of stomach                     | Diagnosis | ICD-10-CM |
| C16.9 | Malignant neoplasm of stomach, unspecified                             | Diagnosis | ICD-10-CM |
| C17   | Malignant neoplasm of small intestine                                  | Diagnosis | ICD-10-CM |
| C17.0 | Malignant neoplasm of duodenum                                         | Diagnosis | ICD-10-CM |
| C17.1 | Malignant neoplasm of jejunum                                          | Diagnosis | ICD-10-CM |
| C17.2 | Malignant neoplasm of ileum                                            | Diagnosis | ICD-10-CM |
| C17.3 | Meckel's diverticulum, malignant                                       | Diagnosis | ICD-10-CM |
| C17.8 | Malignant neoplasm of overlapping sites of small intestine             | Diagnosis | ICD-10-CM |
| C17.9 | Malignant neoplasm of small intestine, unspecified                     | Diagnosis | ICD-10-CM |
| C18   | Malignant neoplasm of colon                                            | Diagnosis | ICD-10-CM |
| C18.0 | Malignant neoplasm of cecum                                            | Diagnosis | ICD-10-CM |
| C18.1 | Malignant neoplasm of appendix                                         | Diagnosis | ICD-10-CM |
| C18.2 | Malignant neoplasm of ascending colon                                  | Diagnosis | ICD-10-CM |
| C18.3 | Malignant neoplasm of hepatic flexure                                  | Diagnosis | ICD-10-CM |
| C18.4 | Malignant neoplasm of transverse colon                                 | Diagnosis | ICD-10-CM |
| C18.5 | Malignant neoplasm of splenic flexure                                  | Diagnosis | ICD-10-CM |
| C18.6 | Malignant neoplasm of descending colon                                 | Diagnosis | ICD-10-CM |
| C18.7 | Malignant neoplasm of sigmoid colon                                    | Diagnosis | ICD-10-CM |
| C18.8 | Malignant neoplasm of overlapping sites of colon                       | Diagnosis | ICD-10-CM |
| C18.9 | Malignant neoplasm of colon, unspecified                               | Diagnosis | ICD-10-CM |
| C19   | Malignant neoplasm of rectosigmoid junction                            | Diagnosis | ICD-10-CM |
| C20   | Malignant neoplasm of rectum                                           | Diagnosis | ICD-10-CM |
| C21   | Malignant neoplasm of anus and anal canal                              | Diagnosis | ICD-10-CM |
| C21.0 | Malignant neoplasm of anus, unspecified                                | Diagnosis | ICD-10-CM |
| C21.1 | Malignant neoplasm of anal canal                                       | Diagnosis | ICD-10-CM |
| C21.2 | Malignant neoplasm of cloacogenic zone                                 | Diagnosis | ICD-10-CM |
| C21.8 | Malignant neoplasm of overlapping sites of rectum, anus and anal canal | Diagnosis | ICD-10-CM |
| C22   | Malignant neoplasm of liver and intrahepatic bile ducts                | Diagnosis | ICD-10-CM |
| C22.0 | Liver cell carcinoma                                                   | Diagnosis | ICD-10-CM |
| C22.1 | Intrahepatic bile duct carcinoma                                       | Diagnosis | ICD-10-CM |
| C22.2 | Hepatoblastoma                                                         | Diagnosis | ICD-10-CM |
| C22.3 | Angiosarcoma of liver                                                  | Diagnosis | ICD-10-CM |
| C22.4 | Other sarcomas of liver                                                | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                         | Code      |           |
|--------|---------------------------------------------------------------------|-----------|-----------|
|        |                                                                     | Category  | Code Type |
| C22.7  | Other specified carcinomas of liver                                 | Diagnosis | ICD-10-CM |
| C22.8  | Malignant neoplasm of liver, primary, unspecified as to type        | Diagnosis | ICD-10-CM |
| C22.9  | Malignant neoplasm of liver, not specified as primary or secondary  | Diagnosis | ICD-10-CM |
| C23    | Malignant neoplasm of gallbladder                                   | Diagnosis | ICD-10-CM |
| C24    | Malignant neoplasm of other and unspecified parts of biliary tract  | Diagnosis | ICD-10-CM |
| C24.0  | Malignant neoplasm of extrahepatic bile duct                        | Diagnosis | ICD-10-CM |
| C24.1  | Malignant neoplasm of ampulla of Vater                              | Diagnosis | ICD-10-CM |
| C24.8  | Malignant neoplasm of overlapping sites of biliary tract            | Diagnosis | ICD-10-CM |
| C24.9  | Malignant neoplasm of biliary tract, unspecified                    | Diagnosis | ICD-10-CM |
| C25    | Malignant neoplasm of pancreas                                      | Diagnosis | ICD-10-CM |
| C25.0  | Malignant neoplasm of head of pancreas                              | Diagnosis | ICD-10-CM |
| C25.1  | Malignant neoplasm of body of pancreas                              | Diagnosis | ICD-10-CM |
| C25.2  | Malignant neoplasm of tail of pancreas                              | Diagnosis | ICD-10-CM |
| C25.3  | Malignant neoplasm of pancreatic duct                               | Diagnosis | ICD-10-CM |
| C25.4  | Malignant neoplasm of endocrine pancreas                            | Diagnosis | ICD-10-CM |
| C25.7  | Malignant neoplasm of other parts of pancreas                       | Diagnosis | ICD-10-CM |
| C25.8  | Malignant neoplasm of overlapping sites of pancreas                 | Diagnosis | ICD-10-CM |
| C25.9  | Malignant neoplasm of pancreas, unspecified                         | Diagnosis | ICD-10-CM |
| C26    | Malignant neoplasm of other and ill-defined digestive organs        | Diagnosis | ICD-10-CM |
| C26.0  | Malignant neoplasm of intestinal tract, part unspecified            | Diagnosis | ICD-10-CM |
| C26.1  | Malignant neoplasm of spleen                                        | Diagnosis | ICD-10-CM |
| C26.9  | Malignant neoplasm of ill-defined sites within the digestive system | Diagnosis | ICD-10-CM |
| C30    | Malignant neoplasm of nasal cavity and middle ear                   | Diagnosis | ICD-10-CM |
| C30.0  | Malignant neoplasm of nasal cavity                                  | Diagnosis | ICD-10-CM |
| C30.1  | Malignant neoplasm of middle ear                                    | Diagnosis | ICD-10-CM |
| C31    | Malignant neoplasm of accessory sinuses                             | Diagnosis | ICD-10-CM |
| C31.0  | Malignant neoplasm of maxillary sinus                               | Diagnosis | ICD-10-CM |
| C31.1  | Malignant neoplasm of ethmoidal sinus                               | Diagnosis | ICD-10-CM |
| C31.2  | Malignant neoplasm of frontal sinus                                 | Diagnosis | ICD-10-CM |
| C31.3  | Malignant neoplasm of sphenoid sinus                                | Diagnosis | ICD-10-CM |
| C31.8  | Malignant neoplasm of overlapping sites of accessory sinuses        | Diagnosis | ICD-10-CM |
| C31.9  | Malignant neoplasm of accessory sinus, unspecified                  | Diagnosis | ICD-10-CM |
| C32    | Malignant neoplasm of larynx                                        | Diagnosis | ICD-10-CM |
| C32.0  | Malignant neoplasm of glottis                                       | Diagnosis | ICD-10-CM |
| C32.1  | Malignant neoplasm of supraglottis                                  | Diagnosis | ICD-10-CM |
| C32.2  | Malignant neoplasm of subglottis                                    | Diagnosis | ICD-10-CM |
| C32.3  | Malignant neoplasm of laryngeal cartilage                           | Diagnosis | ICD-10-CM |
| C32.8  | Malignant neoplasm of overlapping sites of larynx                   | Diagnosis | ICD-10-CM |
| C32.9  | Malignant neoplasm of larynx, unspecified                           | Diagnosis | ICD-10-CM |
| C33    | Malignant neoplasm of trachea                                       | Diagnosis | ICD-10-CM |
| C34    | Malignant neoplasm of bronchus and lung                             | Diagnosis | ICD-10-CM |
| C34.0  | Malignant neoplasm of main bronchus                                 | Diagnosis | ICD-10-CM |
| C34.00 | Malignant neoplasm of unspecified main bronchus                     | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                          | Code      |           |
|--------|------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                      | Category  | Code Type |
| C34.01 | Malignant neoplasm of right main bronchus                                                            | Diagnosis | ICD-10-CM |
| C34.02 | Malignant neoplasm of left main bronchus                                                             | Diagnosis | ICD-10-CM |
| C34.1  | Malignant neoplasm of upper lobe, bronchus or lung                                                   | Diagnosis | ICD-10-CM |
| C34.10 | Malignant neoplasm of upper lobe, unspecified bronchus or lung                                       | Diagnosis | ICD-10-CM |
| C34.11 | Malignant neoplasm of upper lobe, right bronchus or lung                                             | Diagnosis | ICD-10-CM |
| C34.12 | Malignant neoplasm of upper lobe, left bronchus or lung                                              | Diagnosis | ICD-10-CM |
| C34.2  | Malignant neoplasm of middle lobe, bronchus or lung                                                  | Diagnosis | ICD-10-CM |
| C34.3  | Malignant neoplasm of lower lobe, bronchus or lung                                                   | Diagnosis | ICD-10-CM |
| C34.30 | Malignant neoplasm of lower lobe, unspecified bronchus or lung                                       | Diagnosis | ICD-10-CM |
| C34.31 | Malignant neoplasm of lower lobe, right bronchus or lung                                             | Diagnosis | ICD-10-CM |
| C34.32 | Malignant neoplasm of lower lobe, left bronchus or lung                                              | Diagnosis | ICD-10-CM |
| C34.8  | Malignant neoplasm of overlapping sites of bronchus and lung                                         | Diagnosis | ICD-10-CM |
| C34.80 | Malignant neoplasm of overlapping sites of unspecified bronchus and lung                             | Diagnosis | ICD-10-CM |
| C34.81 | Malignant neoplasm of overlapping sites of right bronchus and lung                                   | Diagnosis | ICD-10-CM |
| C34.82 | Malignant neoplasm of overlapping sites of left bronchus and lung                                    | Diagnosis | ICD-10-CM |
| C34.9  | Malignant neoplasm of unspecified part of bronchus or lung                                           | Diagnosis | ICD-10-CM |
| C34.90 | Malignant neoplasm of unspecified part of unspecified bronchus or lung                               | Diagnosis | ICD-10-CM |
| C34.91 | Malignant neoplasm of unspecified part of right bronchus or lung                                     | Diagnosis | ICD-10-CM |
| C34.92 | Malignant neoplasm of unspecified part of left bronchus or lung                                      | Diagnosis | ICD-10-CM |
| C37    | Malignant neoplasm of thymus                                                                         | Diagnosis | ICD-10-CM |
| C38    | Malignant neoplasm of heart, mediastinum and pleura                                                  | Diagnosis | ICD-10-CM |
| C38.0  | Malignant neoplasm of heart                                                                          | Diagnosis | ICD-10-CM |
| C38.1  | Malignant neoplasm of anterior mediastinum                                                           | Diagnosis | ICD-10-CM |
| C38.2  | Malignant neoplasm of posterior mediastinum                                                          | Diagnosis | ICD-10-CM |
| C38.3  | Malignant neoplasm of mediastinum, part unspecified                                                  | Diagnosis | ICD-10-CM |
| C38.4  | Malignant neoplasm of pleura                                                                         | Diagnosis | ICD-10-CM |
| C38.8  | Malignant neoplasm of overlapping sites of heart, mediastinum and pleura                             | Diagnosis | ICD-10-CM |
| C39    | Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs | Diagnosis | ICD-10-CM |
| C39.0  | Malignant neoplasm of upper respiratory tract, part unspecified                                      | Diagnosis | ICD-10-CM |
| C39.9  | Malignant neoplasm of lower respiratory tract, part unspecified                                      | Diagnosis | ICD-10-CM |
| C40    | Malignant neoplasm of bone and articular cartilage of limbs                                          | Diagnosis | ICD-10-CM |
| C40.0  | Malignant neoplasm of scapula and long bones of upper limb                                           | Diagnosis | ICD-10-CM |
| C40.00 | Malignant neoplasm of scapula and long bones of unspecified upper limb                               | Diagnosis | ICD-10-CM |
| C40.01 | Malignant neoplasm of scapula and long bones of right upper limb                                     | Diagnosis | ICD-10-CM |
| C40.02 | Malignant neoplasm of scapula and long bones of left upper limb                                      | Diagnosis | ICD-10-CM |
| C40.1  | Malignant neoplasm of short bones of upper limb                                                      | Diagnosis | ICD-10-CM |
| C40.10 | Malignant neoplasm of short bones of unspecified upper limb                                          | Diagnosis | ICD-10-CM |
| C40.11 | Malignant neoplasm of short bones of right upper limb                                                | Diagnosis | ICD-10-CM |
| C40.12 | Malignant neoplasm of short bones of left upper limb                                                 | Diagnosis | ICD-10-CM |
| C40.2  | Malignant neoplasm of long bones of lower limb                                                       | Diagnosis | ICD-10-CM |
| C40.20 | Malignant neoplasm of long bones of unspecified lower limb                                           | Diagnosis | ICD-10-CM |
| C40.21 | Malignant neoplasm of long bones of right lower limb                                                 | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                 | Code      |           |
|---------|---------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                             | Category  | Code Type |
| C40.22  | Malignant neoplasm of long bones of left lower limb                                         | Diagnosis | ICD-10-CM |
| C40.3   | Malignant neoplasm of short bones of lower limb                                             | Diagnosis | ICD-10-CM |
| C40.30  | Malignant neoplasm of short bones of unspecified lower limb                                 | Diagnosis | ICD-10-CM |
| C40.31  | Malignant neoplasm of short bones of right lower limb                                       | Diagnosis | ICD-10-CM |
| C40.32  | Malignant neoplasm of short bones of left lower limb                                        | Diagnosis | ICD-10-CM |
| C40.8   | Malignant neoplasm of overlapping sites of bone and articular cartilage of limb             | Diagnosis | ICD-10-CM |
| C40.80  | Malignant neoplasm of overlapping sites of bone and articular cartilage of unspecified limb | Diagnosis | ICD-10-CM |
| C40.81  | Malignant neoplasm of overlapping sites of bone and articular cartilage of right limb       | Diagnosis | ICD-10-CM |
| C40.82  | Malignant neoplasm of overlapping sites of bone and articular cartilage of left limb        | Diagnosis | ICD-10-CM |
| C40.9   | Malignant neoplasm of unspecified bones and articular cartilage of limb                     | Diagnosis | ICD-10-CM |
| C40.90  | Malignant neoplasm of unspecified bones and articular cartilage of unspecified limb         | Diagnosis | ICD-10-CM |
| C40.91  | Malignant neoplasm of unspecified bones and articular cartilage of right limb               | Diagnosis | ICD-10-CM |
| C40.92  | Malignant neoplasm of unspecified bones and articular cartilage of left limb                | Diagnosis | ICD-10-CM |
| C41     | Malignant neoplasm of bone and articular cartilage of other and unspecified sites           | Diagnosis | ICD-10-CM |
| C41.0   | Malignant neoplasm of bones of skull and face                                               | Diagnosis | ICD-10-CM |
| C41.1   | Malignant neoplasm of mandible                                                              | Diagnosis | ICD-10-CM |
| C41.2   | Malignant neoplasm of vertebral column                                                      | Diagnosis | ICD-10-CM |
| C41.3   | Malignant neoplasm of ribs, sternum and clavicle                                            | Diagnosis | ICD-10-CM |
| C41.4   | Malignant neoplasm of pelvic bones, sacrum and coccyx                                       | Diagnosis | ICD-10-CM |
| C41.9   | Malignant neoplasm of bone and articular cartilage, unspecified                             | Diagnosis | ICD-10-CM |
| C43     | Malignant melanoma of skin                                                                  | Diagnosis | ICD-10-CM |
| C43.0   | Malignant melanoma of lip                                                                   | Diagnosis | ICD-10-CM |
| C43.1   | Malignant melanoma of eyelid, including canthus                                             | Diagnosis | ICD-10-CM |
| C43.10  | Malignant melanoma of unspecified eyelid, including canthus                                 | Diagnosis | ICD-10-CM |
| C43.11  | Malignant melanoma of right eyelid, including canthus                                       | Diagnosis | ICD-10-CM |
| C43.111 | Malignant melanoma of right upper eyelid, including canthus                                 | Diagnosis | ICD-10-CM |
| C43.112 | Malignant melanoma of right lower eyelid, including canthus                                 | Diagnosis | ICD-10-CM |
| C43.12  | Malignant melanoma of left eyelid, including canthus                                        | Diagnosis | ICD-10-CM |
| C43.121 | Malignant melanoma of left upper eyelid, including canthus                                  | Diagnosis | ICD-10-CM |
| C43.122 | Malignant melanoma of left lower eyelid, including canthus                                  | Diagnosis | ICD-10-CM |
| C43.2   | Malignant melanoma of ear and external auricular canal                                      | Diagnosis | ICD-10-CM |
| C43.20  | Malignant melanoma of unspecified ear and external auricular canal                          | Diagnosis | ICD-10-CM |
| C43.21  | Malignant melanoma of right ear and external auricular canal                                | Diagnosis | ICD-10-CM |
| C43.22  | Malignant melanoma of left ear and external auricular canal                                 | Diagnosis | ICD-10-CM |
| C43.3   | Malignant melanoma of other and unspecified parts of face                                   | Diagnosis | ICD-10-CM |
| C43.30  | Malignant melanoma of unspecified part of face                                              | Diagnosis | ICD-10-CM |
| C43.31  | Malignant melanoma of nose                                                                  | Diagnosis | ICD-10-CM |
| C43.39  | Malignant melanoma of other parts of face                                                   | Diagnosis | ICD-10-CM |
| C43.4   | Malignant melanoma of scalp and neck                                                        | Diagnosis | ICD-10-CM |
| C43.5   | Malignant melanoma of trunk                                                                 | Diagnosis | ICD-10-CM |
| C43.51  | Malignant melanoma of anal skin                                                             | Diagnosis | ICD-10-CM |
| C43.52  | Malignant melanoma of skin of breast                                                        | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                           | Code      |           |
|--------|---------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                       | Category  | Code Type |
| C43.59 | Malignant melanoma of other part of trunk                                             | Diagnosis | ICD-10-CM |
| C43.6  | Malignant melanoma of upper limb, including shoulder                                  | Diagnosis | ICD-10-CM |
| C43.60 | Malignant melanoma of unspecified upper limb, including shoulder                      | Diagnosis | ICD-10-CM |
| C43.61 | Malignant melanoma of right upper limb, including shoulder                            | Diagnosis | ICD-10-CM |
| C43.62 | Malignant melanoma of left upper limb, including shoulder                             | Diagnosis | ICD-10-CM |
| C43.7  | Malignant melanoma of lower limb, including hip                                       | Diagnosis | ICD-10-CM |
| C43.70 | Malignant melanoma of unspecified lower limb, including hip                           | Diagnosis | ICD-10-CM |
| C43.71 | Malignant melanoma of right lower limb, including hip                                 | Diagnosis | ICD-10-CM |
| C43.72 | Malignant melanoma of left lower limb, including hip                                  | Diagnosis | ICD-10-CM |
| C43.8  | Malignant melanoma of overlapping sites of skin                                       | Diagnosis | ICD-10-CM |
| C43.9  | Malignant melanoma of skin, unspecified                                               | Diagnosis | ICD-10-CM |
| C45    | Mesothelioma                                                                          | Diagnosis | ICD-10-CM |
| C45.0  | Mesothelioma of pleura                                                                | Diagnosis | ICD-10-CM |
| C45.1  | Mesothelioma of peritoneum                                                            | Diagnosis | ICD-10-CM |
| C45.2  | Mesothelioma of pericardium                                                           | Diagnosis | ICD-10-CM |
| C45.7  | Mesothelioma of other sites                                                           | Diagnosis | ICD-10-CM |
| C45.9  | Mesothelioma, unspecified                                                             | Diagnosis | ICD-10-CM |
| C46    | Kaposi's sarcoma                                                                      | Diagnosis | ICD-10-CM |
| C46.0  | Kaposi's sarcoma of skin                                                              | Diagnosis | ICD-10-CM |
| C46.1  | Kaposi's sarcoma of soft tissue                                                       | Diagnosis | ICD-10-CM |
| C46.2  | Kaposi's sarcoma of palate                                                            | Diagnosis | ICD-10-CM |
| C46.3  | Kaposi's sarcoma of lymph nodes                                                       | Diagnosis | ICD-10-CM |
| C46.4  | Kaposi's sarcoma of gastrointestinal sites                                            | Diagnosis | ICD-10-CM |
| C46.5  | Kaposi's sarcoma of lung                                                              | Diagnosis | ICD-10-CM |
| C46.50 | Kaposi's sarcoma of unspecified lung                                                  | Diagnosis | ICD-10-CM |
| C46.51 | Kaposi's sarcoma of right lung                                                        | Diagnosis | ICD-10-CM |
| C46.52 | Kaposi's sarcoma of left lung                                                         | Diagnosis | ICD-10-CM |
| C46.7  | Kaposi's sarcoma of other sites                                                       | Diagnosis | ICD-10-CM |
| C46.9  | Kaposi's sarcoma, unspecified                                                         | Diagnosis | ICD-10-CM |
| C47    | Malignant neoplasm of peripheral nerves and autonomic nervous system                  | Diagnosis | ICD-10-CM |
| C47.0  | Malignant neoplasm of peripheral nerves of head, face and neck                        | Diagnosis | ICD-10-CM |
| C47.1  | Malignant neoplasm of peripheral nerves of upper limb, including shoulder             | Diagnosis | ICD-10-CM |
| C47.10 | Malignant neoplasm of peripheral nerves of unspecified upper limb, including shoulder | Diagnosis | ICD-10-CM |
| C47.11 | Malignant neoplasm of peripheral nerves of right upper limb, including shoulder       | Diagnosis | ICD-10-CM |
| C47.12 | Malignant neoplasm of peripheral nerves of left upper limb, including shoulder        | Diagnosis | ICD-10-CM |
| C47.2  | Malignant neoplasm of peripheral nerves of lower limb, including hip                  | Diagnosis | ICD-10-CM |
| C47.20 | Malignant neoplasm of peripheral nerves of unspecified lower limb, including hip      | Diagnosis | ICD-10-CM |
| C47.21 | Malignant neoplasm of peripheral nerves of right lower limb, including hip            | Diagnosis | ICD-10-CM |
| C47.22 | Malignant neoplasm of peripheral nerves of left lower limb, including hip             | Diagnosis | ICD-10-CM |
| C47.3  | Malignant neoplasm of peripheral nerves of thorax                                     | Diagnosis | ICD-10-CM |
| C47.4  | Malignant neoplasm of peripheral nerves of abdomen                                    | Diagnosis | ICD-10-CM |
| C47.5  | Malignant neoplasm of peripheral nerves of pelvis                                     | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                    | Code      |           |
|---------|------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                | Category  | Code Type |
| C47.6   | Malignant neoplasm of peripheral nerves of trunk, unspecified                                  | Diagnosis | ICD-10-CM |
| C47.8   | Malignant neoplasm of overlapping sites of peripheral nerves and autonomic nervous system      | Diagnosis | ICD-10-CM |
| C47.9   | Malignant neoplasm of peripheral nerves and autonomic nervous system, unspecified              | Diagnosis | ICD-10-CM |
| C48     | Malignant neoplasm of retroperitoneum and peritoneum                                           | Diagnosis | ICD-10-CM |
| C48.0   | Malignant neoplasm of retroperitoneum                                                          | Diagnosis | ICD-10-CM |
| C48.1   | Malignant neoplasm of specified parts of peritoneum                                            | Diagnosis | ICD-10-CM |
| C48.2   | Malignant neoplasm of peritoneum, unspecified                                                  | Diagnosis | ICD-10-CM |
| C48.8   | Malignant neoplasm of overlapping sites of retroperitoneum and peritoneum                      | Diagnosis | ICD-10-CM |
| C49     | Malignant neoplasm of other connective and soft tissue                                         | Diagnosis | ICD-10-CM |
| C49.0   | Malignant neoplasm of connective and soft tissue of head, face and neck                        | Diagnosis | ICD-10-CM |
| C49.1   | Malignant neoplasm of connective and soft tissue of upper limb, including shoulder             | Diagnosis | ICD-10-CM |
| C49.10  | Malignant neoplasm of connective and soft tissue of unspecified upper limb, including shoulder | Diagnosis | ICD-10-CM |
| C49.11  | Malignant neoplasm of connective and soft tissue of right upper limb, including shoulder       | Diagnosis | ICD-10-CM |
| C49.12  | Malignant neoplasm of connective and soft tissue of left upper limb, including shoulder        | Diagnosis | ICD-10-CM |
| C49.2   | Malignant neoplasm of connective and soft tissue of lower limb, including hip                  | Diagnosis | ICD-10-CM |
| C49.20  | Malignant neoplasm of connective and soft tissue of unspecified lower limb, including hip      | Diagnosis | ICD-10-CM |
| C49.21  | Malignant neoplasm of connective and soft tissue of right lower limb, including hip            | Diagnosis | ICD-10-CM |
| C49.22  | Malignant neoplasm of connective and soft tissue of left lower limb, including hip             | Diagnosis | ICD-10-CM |
| C49.3   | Malignant neoplasm of connective and soft tissue of thorax                                     | Diagnosis | ICD-10-CM |
| C49.4   | Malignant neoplasm of connective and soft tissue of abdomen                                    | Diagnosis | ICD-10-CM |
| C49.5   | Malignant neoplasm of connective and soft tissue of pelvis                                     | Diagnosis | ICD-10-CM |
| C49.6   | Malignant neoplasm of connective and soft tissue of trunk, unspecified                         | Diagnosis | ICD-10-CM |
| C49.8   | Malignant neoplasm of overlapping sites of connective and soft tissue                          | Diagnosis | ICD-10-CM |
| C49.9   | Malignant neoplasm of connective and soft tissue, unspecified                                  | Diagnosis | ICD-10-CM |
| C49.A   | Gastrointestinal stromal tumor                                                                 | Diagnosis | ICD-10-CM |
| C49.A0  | Gastrointestinal stromal tumor, unspecified site                                               | Diagnosis | ICD-10-CM |
| C49.A1  | Gastrointestinal stromal tumor of esophagus                                                    | Diagnosis | ICD-10-CM |
| C49.A2  | Gastrointestinal stromal tumor of stomach                                                      | Diagnosis | ICD-10-CM |
| C49.A3  | Gastrointestinal stromal tumor of small intestine                                              | Diagnosis | ICD-10-CM |
| C49.A4  | Gastrointestinal stromal tumor of large intestine                                              | Diagnosis | ICD-10-CM |
| C49.A5  | Gastrointestinal stromal tumor of rectum                                                       | Diagnosis | ICD-10-CM |
| C49.A9  | Gastrointestinal stromal tumor of other sites                                                  | Diagnosis | ICD-10-CM |
| C50     | Malignant neoplasm of breast                                                                   | Diagnosis | ICD-10-CM |
| C50.0   | Malignant neoplasm of nipple and areola                                                        | Diagnosis | ICD-10-CM |
| C50.01  | Malignant neoplasm of nipple and areola, female                                                | Diagnosis | ICD-10-CM |
| C50.011 | Malignant neoplasm of nipple and areola, right female breast                                   | Diagnosis | ICD-10-CM |
| C50.012 | Malignant neoplasm of nipple and areola, left female breast                                    | Diagnosis | ICD-10-CM |
| C50.019 | Malignant neoplasm of nipple and areola, unspecified female breast                             | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                             | Code      |           |
|---------|-------------------------------------------------------------------------|-----------|-----------|
|         |                                                                         | Category  | Code Type |
| C50.02  | Malignant neoplasm of nipple and areola, male                           | Diagnosis | ICD-10-CM |
| C50.021 | Malignant neoplasm of nipple and areola, right male breast              | Diagnosis | ICD-10-CM |
| C50.022 | Malignant neoplasm of nipple and areola, left male breast               | Diagnosis | ICD-10-CM |
| C50.029 | Malignant neoplasm of nipple and areola, unspecified male breast        | Diagnosis | ICD-10-CM |
| C50.1   | Malignant neoplasm of central portion of breast                         | Diagnosis | ICD-10-CM |
| C50.11  | Malignant neoplasm of central portion of breast, female                 | Diagnosis | ICD-10-CM |
| C50.111 | Malignant neoplasm of central portion of right female breast            | Diagnosis | ICD-10-CM |
| C50.112 | Malignant neoplasm of central portion of left female breast             | Diagnosis | ICD-10-CM |
| C50.119 | Malignant neoplasm of central portion of unspecified female breast      | Diagnosis | ICD-10-CM |
| C50.12  | Malignant neoplasm of central portion of breast, male                   | Diagnosis | ICD-10-CM |
| C50.121 | Malignant neoplasm of central portion of right male breast              | Diagnosis | ICD-10-CM |
| C50.122 | Malignant neoplasm of central portion of left male breast               | Diagnosis | ICD-10-CM |
| C50.129 | Malignant neoplasm of central portion of unspecified male breast        | Diagnosis | ICD-10-CM |
| C50.2   | Malignant neoplasm of upper-inner quadrant of breast                    | Diagnosis | ICD-10-CM |
| C50.21  | Malignant neoplasm of upper-inner quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.211 | Malignant neoplasm of upper-inner quadrant of right female breast       | Diagnosis | ICD-10-CM |
| C50.212 | Malignant neoplasm of upper-inner quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.219 | Malignant neoplasm of upper-inner quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.22  | Malignant neoplasm of upper-inner quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.221 | Malignant neoplasm of upper-inner quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.222 | Malignant neoplasm of upper-inner quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.229 | Malignant neoplasm of upper-inner quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.3   | Malignant neoplasm of lower-inner quadrant of breast                    | Diagnosis | ICD-10-CM |
| C50.31  | Malignant neoplasm of lower-inner quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.311 | Malignant neoplasm of lower-inner quadrant of right female breast       | Diagnosis | ICD-10-CM |
| C50.312 | Malignant neoplasm of lower-inner quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.319 | Malignant neoplasm of lower-inner quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.32  | Malignant neoplasm of lower-inner quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.321 | Malignant neoplasm of lower-inner quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.322 | Malignant neoplasm of lower-inner quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.329 | Malignant neoplasm of lower-inner quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.4   | Malignant neoplasm of upper-outer quadrant of breast                    | Diagnosis | ICD-10-CM |
| C50.41  | Malignant neoplasm of upper-outer quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.411 | Malignant neoplasm of upper-outer quadrant of right female breast       | Diagnosis | ICD-10-CM |
| C50.412 | Malignant neoplasm of upper-outer quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.419 | Malignant neoplasm of upper-outer quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.42  | Malignant neoplasm of upper-outer quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.421 | Malignant neoplasm of upper-outer quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.422 | Malignant neoplasm of upper-outer quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.429 | Malignant neoplasm of upper-outer quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.5   | Malignant neoplasm of lower-outer quadrant of breast                    | Diagnosis | ICD-10-CM |
| C50.51  | Malignant neoplasm of lower-outer quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.511 | Malignant neoplasm of lower-outer quadrant of right female breast       | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                             | Code      |           |
|---------|-------------------------------------------------------------------------|-----------|-----------|
|         |                                                                         | Category  | Code Type |
| C50.512 | Malignant neoplasm of lower-outer quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.519 | Malignant neoplasm of lower-outer quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.52  | Malignant neoplasm of lower-outer quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.521 | Malignant neoplasm of lower-outer quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.522 | Malignant neoplasm of lower-outer quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.529 | Malignant neoplasm of lower-outer quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.6   | Malignant neoplasm of axillary tail of breast                           | Diagnosis | ICD-10-CM |
| C50.61  | Malignant neoplasm of axillary tail of breast, female                   | Diagnosis | ICD-10-CM |
| C50.611 | Malignant neoplasm of axillary tail of right female breast              | Diagnosis | ICD-10-CM |
| C50.612 | Malignant neoplasm of axillary tail of left female breast               | Diagnosis | ICD-10-CM |
| C50.619 | Malignant neoplasm of axillary tail of unspecified female breast        | Diagnosis | ICD-10-CM |
| C50.62  | Malignant neoplasm of axillary tail of breast, male                     | Diagnosis | ICD-10-CM |
| C50.621 | Malignant neoplasm of axillary tail of right male breast                | Diagnosis | ICD-10-CM |
| C50.622 | Malignant neoplasm of axillary tail of left male breast                 | Diagnosis | ICD-10-CM |
| C50.629 | Malignant neoplasm of axillary tail of unspecified male breast          | Diagnosis | ICD-10-CM |
| C50.8   | Malignant neoplasm of overlapping sites of breast                       | Diagnosis | ICD-10-CM |
| C50.81  | Malignant neoplasm of overlapping sites of breast, female               | Diagnosis | ICD-10-CM |
| C50.811 | Malignant neoplasm of overlapping sites of right female breast          | Diagnosis | ICD-10-CM |
| C50.812 | Malignant neoplasm of overlapping sites of left female breast           | Diagnosis | ICD-10-CM |
| C50.819 | Malignant neoplasm of overlapping sites of unspecified female breast    | Diagnosis | ICD-10-CM |
| C50.82  | Malignant neoplasm of overlapping sites of breast, male                 | Diagnosis | ICD-10-CM |
| C50.821 | Malignant neoplasm of overlapping sites of right male breast            | Diagnosis | ICD-10-CM |
| C50.822 | Malignant neoplasm of overlapping sites of left male breast             | Diagnosis | ICD-10-CM |
| C50.829 | Malignant neoplasm of overlapping sites of unspecified male breast      | Diagnosis | ICD-10-CM |
| C50.9   | Malignant neoplasm of breast of unspecified site                        | Diagnosis | ICD-10-CM |
| C50.91  | Malignant neoplasm of breast of unspecified site, female                | Diagnosis | ICD-10-CM |
| C50.911 | Malignant neoplasm of unspecified site of right female breast           | Diagnosis | ICD-10-CM |
| C50.912 | Malignant neoplasm of unspecified site of left female breast            | Diagnosis | ICD-10-CM |
| C50.919 | Malignant neoplasm of unspecified site of unspecified female breast     | Diagnosis | ICD-10-CM |
| C50.92  | Malignant neoplasm of breast of unspecified site, male                  | Diagnosis | ICD-10-CM |
| C50.921 | Malignant neoplasm of unspecified site of right male breast             | Diagnosis | ICD-10-CM |
| C50.922 | Malignant neoplasm of unspecified site of left male breast              | Diagnosis | ICD-10-CM |
| C50.929 | Malignant neoplasm of unspecified site of unspecified male breast       | Diagnosis | ICD-10-CM |
| C51     | Malignant neoplasm of vulva                                             | Diagnosis | ICD-10-CM |
| C51.0   | Malignant neoplasm of labium majus                                      | Diagnosis | ICD-10-CM |
| C51.1   | Malignant neoplasm of labium minus                                      | Diagnosis | ICD-10-CM |
| C51.2   | Malignant neoplasm of clitoris                                          | Diagnosis | ICD-10-CM |
| C51.8   | Malignant neoplasm of overlapping sites of vulva                        | Diagnosis | ICD-10-CM |
| C51.9   | Malignant neoplasm of vulva, unspecified                                | Diagnosis | ICD-10-CM |
| C52     | Malignant neoplasm of vagina                                            | Diagnosis | ICD-10-CM |
| C53     | Malignant neoplasm of cervix uteri                                      | Diagnosis | ICD-10-CM |
| C53.0   | Malignant neoplasm of endocervix                                        | Diagnosis | ICD-10-CM |
| C53.1   | Malignant neoplasm of exocervix                                         | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                       | Code      |           |
|--------|-------------------------------------------------------------------|-----------|-----------|
|        |                                                                   | Category  | Code Type |
| C53.8  | Malignant neoplasm of overlapping sites of cervix uteri           | Diagnosis | ICD-10-CM |
| C53.9  | Malignant neoplasm of cervix uteri, unspecified                   | Diagnosis | ICD-10-CM |
| C54    | Malignant neoplasm of corpus uteri                                | Diagnosis | ICD-10-CM |
| C54.0  | Malignant neoplasm of isthmus uteri                               | Diagnosis | ICD-10-CM |
| C54.1  | Malignant neoplasm of endometrium                                 | Diagnosis | ICD-10-CM |
| C54.2  | Malignant neoplasm of myometrium                                  | Diagnosis | ICD-10-CM |
| C54.3  | Malignant neoplasm of fundus uteri                                | Diagnosis | ICD-10-CM |
| C54.8  | Malignant neoplasm of overlapping sites of corpus uteri           | Diagnosis | ICD-10-CM |
| C54.9  | Malignant neoplasm of corpus uteri, unspecified                   | Diagnosis | ICD-10-CM |
| C55    | Malignant neoplasm of uterus, part unspecified                    | Diagnosis | ICD-10-CM |
| C56    | Malignant neoplasm of ovary                                       | Diagnosis | ICD-10-CM |
| C56.1  | Malignant neoplasm of right ovary                                 | Diagnosis | ICD-10-CM |
| C56.2  | Malignant neoplasm of left ovary                                  | Diagnosis | ICD-10-CM |
| C56.3  | Malignant neoplasm of bilateral ovaries                           | Diagnosis | ICD-10-CM |
| C56.9  | Malignant neoplasm of unspecified ovary                           | Diagnosis | ICD-10-CM |
| C57    | Malignant neoplasm of other and unspecified female genital organs | Diagnosis | ICD-10-CM |
| C57.0  | Malignant neoplasm of fallopian tube                              | Diagnosis | ICD-10-CM |
| C57.00 | Malignant neoplasm of unspecified fallopian tube                  | Diagnosis | ICD-10-CM |
| C57.01 | Malignant neoplasm of right fallopian tube                        | Diagnosis | ICD-10-CM |
| C57.02 | Malignant neoplasm of left fallopian tube                         | Diagnosis | ICD-10-CM |
| C57.1  | Malignant neoplasm of broad ligament                              | Diagnosis | ICD-10-CM |
| C57.10 | Malignant neoplasm of unspecified broad ligament                  | Diagnosis | ICD-10-CM |
| C57.11 | Malignant neoplasm of right broad ligament                        | Diagnosis | ICD-10-CM |
| C57.12 | Malignant neoplasm of left broad ligament                         | Diagnosis | ICD-10-CM |
| C57.2  | Malignant neoplasm of round ligament                              | Diagnosis | ICD-10-CM |
| C57.20 | Malignant neoplasm of unspecified round ligament                  | Diagnosis | ICD-10-CM |
| C57.21 | Malignant neoplasm of right round ligament                        | Diagnosis | ICD-10-CM |
| C57.22 | Malignant neoplasm of left round ligament                         | Diagnosis | ICD-10-CM |
| C57.3  | Malignant neoplasm of parametrium                                 | Diagnosis | ICD-10-CM |
| C57.4  | Malignant neoplasm of uterine adnexa, unspecified                 | Diagnosis | ICD-10-CM |
| C57.7  | Malignant neoplasm of other specified female genital organs       | Diagnosis | ICD-10-CM |
| C57.8  | Malignant neoplasm of overlapping sites of female genital organs  | Diagnosis | ICD-10-CM |
| C57.9  | Malignant neoplasm of female genital organ, unspecified           | Diagnosis | ICD-10-CM |
| C58    | Malignant neoplasm of placenta                                    | Diagnosis | ICD-10-CM |
| C60    | Malignant neoplasm of penis                                       | Diagnosis | ICD-10-CM |
| C60.0  | Malignant neoplasm of prepuce                                     | Diagnosis | ICD-10-CM |
| C60.1  | Malignant neoplasm of glans penis                                 | Diagnosis | ICD-10-CM |
| C60.2  | Malignant neoplasm of body of penis                               | Diagnosis | ICD-10-CM |
| C60.8  | Malignant neoplasm of overlapping sites of penis                  | Diagnosis | ICD-10-CM |
| C60.9  | Malignant neoplasm of penis, unspecified                          | Diagnosis | ICD-10-CM |
| C61    | Malignant neoplasm of prostate                                    | Diagnosis | ICD-10-CM |
| C62    | Malignant neoplasm of testis                                      | Diagnosis | ICD-10-CM |
| C62.0  | Malignant neoplasm of undescended testis                          | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                            | Code      |           |
|--------|----------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                        | Category  | Code Type |
| C62.00 | Malignant neoplasm of unspecified undescended testis                                   | Diagnosis | ICD-10-CM |
| C62.01 | Malignant neoplasm of undescended right testis                                         | Diagnosis | ICD-10-CM |
| C62.02 | Malignant neoplasm of undescended left testis                                          | Diagnosis | ICD-10-CM |
| C62.1  | Malignant neoplasm of descended testis                                                 | Diagnosis | ICD-10-CM |
| C62.10 | Malignant neoplasm of unspecified descended testis                                     | Diagnosis | ICD-10-CM |
| C62.11 | Malignant neoplasm of descended right testis                                           | Diagnosis | ICD-10-CM |
| C62.12 | Malignant neoplasm of descended left testis                                            | Diagnosis | ICD-10-CM |
| C62.9  | Malignant neoplasm of testis, unspecified whether descended or undescended             | Diagnosis | ICD-10-CM |
| C62.90 | Malignant neoplasm of unspecified testis, unspecified whether descended or undescended | Diagnosis | ICD-10-CM |
| C62.91 | Malignant neoplasm of right testis, unspecified whether descended or undescended       | Diagnosis | ICD-10-CM |
| C62.92 | Malignant neoplasm of left testis, unspecified whether descended or undescended        | Diagnosis | ICD-10-CM |
| C63    | Malignant neoplasm of other and unspecified male genital organs                        | Diagnosis | ICD-10-CM |
| C63.0  | Malignant neoplasm of epididymis                                                       | Diagnosis | ICD-10-CM |
| C63.00 | Malignant neoplasm of unspecified epididymis                                           | Diagnosis | ICD-10-CM |
| C63.01 | Malignant neoplasm of right epididymis                                                 | Diagnosis | ICD-10-CM |
| C63.02 | Malignant neoplasm of left epididymis                                                  | Diagnosis | ICD-10-CM |
| C63.1  | Malignant neoplasm of spermatic cord                                                   | Diagnosis | ICD-10-CM |
| C63.10 | Malignant neoplasm of unspecified spermatic cord                                       | Diagnosis | ICD-10-CM |
| C63.11 | Malignant neoplasm of right spermatic cord                                             | Diagnosis | ICD-10-CM |
| C63.12 | Malignant neoplasm of left spermatic cord                                              | Diagnosis | ICD-10-CM |
| C63.2  | Malignant neoplasm of scrotum                                                          | Diagnosis | ICD-10-CM |
| C63.7  | Malignant neoplasm of other specified male genital organs                              | Diagnosis | ICD-10-CM |
| C63.8  | Malignant neoplasm of overlapping sites of male genital organs                         | Diagnosis | ICD-10-CM |
| C63.9  | Malignant neoplasm of male genital organ, unspecified                                  | Diagnosis | ICD-10-CM |
| C65    | Malignant neoplasm of renal pelvis                                                     | Diagnosis | ICD-10-CM |
| C65.1  | Malignant neoplasm of right renal pelvis                                               | Diagnosis | ICD-10-CM |
| C65.2  | Malignant neoplasm of left renal pelvis                                                | Diagnosis | ICD-10-CM |
| C65.9  | Malignant neoplasm of unspecified renal pelvis                                         | Diagnosis | ICD-10-CM |
| C66    | Malignant neoplasm of ureter                                                           | Diagnosis | ICD-10-CM |
| C66.1  | Malignant neoplasm of right ureter                                                     | Diagnosis | ICD-10-CM |
| C66.2  | Malignant neoplasm of left ureter                                                      | Diagnosis | ICD-10-CM |
| C66.9  | Malignant neoplasm of unspecified ureter                                               | Diagnosis | ICD-10-CM |
| C67    | Malignant neoplasm of bladder                                                          | Diagnosis | ICD-10-CM |
| C67.0  | Malignant neoplasm of trigone of bladder                                               | Diagnosis | ICD-10-CM |
| C67.1  | Malignant neoplasm of dome of bladder                                                  | Diagnosis | ICD-10-CM |
| C67.2  | Malignant neoplasm of lateral wall of bladder                                          | Diagnosis | ICD-10-CM |
| C67.3  | Malignant neoplasm of anterior wall of bladder                                         | Diagnosis | ICD-10-CM |
| C67.4  | Malignant neoplasm of posterior wall of bladder                                        | Diagnosis | ICD-10-CM |
| C67.5  | Malignant neoplasm of bladder neck                                                     | Diagnosis | ICD-10-CM |
| C67.6  | Malignant neoplasm of ureteric orifice                                                 | Diagnosis | ICD-10-CM |
| C67.7  | Malignant neoplasm of urachus                                                          | Diagnosis | ICD-10-CM |
| C67.8  | Malignant neoplasm of overlapping sites of bladder                                     | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                           | Code      |           |
|--------|-----------------------------------------------------------------------|-----------|-----------|
|        |                                                                       | Category  | Code Type |
| C67.9  | Malignant neoplasm of bladder, unspecified                            | Diagnosis | ICD-10-CM |
| C68    | Malignant neoplasm of other and unspecified urinary organs            | Diagnosis | ICD-10-CM |
| C68.0  | Malignant neoplasm of urethra                                         | Diagnosis | ICD-10-CM |
| C68.1  | Malignant neoplasm of paraurethral glands                             | Diagnosis | ICD-10-CM |
| C68.8  | Malignant neoplasm of overlapping sites of urinary organs             | Diagnosis | ICD-10-CM |
| C68.9  | Malignant neoplasm of urinary organ, unspecified                      | Diagnosis | ICD-10-CM |
| C69    | Malignant neoplasm of eye and adnexa                                  | Diagnosis | ICD-10-CM |
| C69.0  | Malignant neoplasm of conjunctiva                                     | Diagnosis | ICD-10-CM |
| C69.00 | Malignant neoplasm of unspecified conjunctiva                         | Diagnosis | ICD-10-CM |
| C69.01 | Malignant neoplasm of right conjunctiva                               | Diagnosis | ICD-10-CM |
| C69.02 | Malignant neoplasm of left conjunctiva                                | Diagnosis | ICD-10-CM |
| C69.1  | Malignant neoplasm of cornea                                          | Diagnosis | ICD-10-CM |
| C69.10 | Malignant neoplasm of unspecified cornea                              | Diagnosis | ICD-10-CM |
| C69.11 | Malignant neoplasm of right cornea                                    | Diagnosis | ICD-10-CM |
| C69.12 | Malignant neoplasm of left cornea                                     | Diagnosis | ICD-10-CM |
| C69.2  | Malignant neoplasm of retina                                          | Diagnosis | ICD-10-CM |
| C69.20 | Malignant neoplasm of unspecified retina                              | Diagnosis | ICD-10-CM |
| C69.21 | Malignant neoplasm of right retina                                    | Diagnosis | ICD-10-CM |
| C69.22 | Malignant neoplasm of left retina                                     | Diagnosis | ICD-10-CM |
| C69.3  | Malignant neoplasm of choroid                                         | Diagnosis | ICD-10-CM |
| C69.30 | Malignant neoplasm of unspecified choroid                             | Diagnosis | ICD-10-CM |
| C69.31 | Malignant neoplasm of right choroid                                   | Diagnosis | ICD-10-CM |
| C69.32 | Malignant neoplasm of left choroid                                    | Diagnosis | ICD-10-CM |
| C69.4  | Malignant neoplasm of ciliary body                                    | Diagnosis | ICD-10-CM |
| C69.40 | Malignant neoplasm of unspecified ciliary body                        | Diagnosis | ICD-10-CM |
| C69.41 | Malignant neoplasm of right ciliary body                              | Diagnosis | ICD-10-CM |
| C69.42 | Malignant neoplasm of left ciliary body                               | Diagnosis | ICD-10-CM |
| C69.5  | Malignant neoplasm of lacrimal gland and duct                         | Diagnosis | ICD-10-CM |
| C69.50 | Malignant neoplasm of unspecified lacrimal gland and duct             | Diagnosis | ICD-10-CM |
| C69.51 | Malignant neoplasm of right lacrimal gland and duct                   | Diagnosis | ICD-10-CM |
| C69.52 | Malignant neoplasm of left lacrimal gland and duct                    | Diagnosis | ICD-10-CM |
| C69.6  | Malignant neoplasm of orbit                                           | Diagnosis | ICD-10-CM |
| C69.60 | Malignant neoplasm of unspecified orbit                               | Diagnosis | ICD-10-CM |
| C69.61 | Malignant neoplasm of right orbit                                     | Diagnosis | ICD-10-CM |
| C69.62 | Malignant neoplasm of left orbit                                      | Diagnosis | ICD-10-CM |
| C69.8  | Malignant neoplasm of overlapping sites of eye and adnexa             | Diagnosis | ICD-10-CM |
| C69.80 | Malignant neoplasm of overlapping sites of unspecified eye and adnexa | Diagnosis | ICD-10-CM |
| C69.81 | Malignant neoplasm of overlapping sites of right eye and adnexa       | Diagnosis | ICD-10-CM |
| C69.82 | Malignant neoplasm of overlapping sites of left eye and adnexa        | Diagnosis | ICD-10-CM |
| C69.9  | Malignant neoplasm of unspecified site of eye                         | Diagnosis | ICD-10-CM |
| C69.90 | Malignant neoplasm of unspecified site of unspecified eye             | Diagnosis | ICD-10-CM |
| C69.91 | Malignant neoplasm of unspecified site of right eye                   | Diagnosis | ICD-10-CM |
| C69.92 | Malignant neoplasm of unspecified site of left eye                    | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                 | Code      |           |
|--------|---------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                             | Category  | Code Type |
| C70    | Malignant neoplasm of meninges                                                              | Diagnosis | ICD-10-CM |
| C70.0  | Malignant neoplasm of cerebral meninges                                                     | Diagnosis | ICD-10-CM |
| C70.1  | Malignant neoplasm of spinal meninges                                                       | Diagnosis | ICD-10-CM |
| C70.9  | Malignant neoplasm of meninges, unspecified                                                 | Diagnosis | ICD-10-CM |
| C71    | Malignant neoplasm of brain                                                                 | Diagnosis | ICD-10-CM |
| C71.0  | Malignant neoplasm of cerebrum, except lobes and ventricles                                 | Diagnosis | ICD-10-CM |
| C71.1  | Malignant neoplasm of frontal lobe                                                          | Diagnosis | ICD-10-CM |
| C71.2  | Malignant neoplasm of temporal lobe                                                         | Diagnosis | ICD-10-CM |
| C71.3  | Malignant neoplasm of parietal lobe                                                         | Diagnosis | ICD-10-CM |
| C71.4  | Malignant neoplasm of occipital lobe                                                        | Diagnosis | ICD-10-CM |
| C71.5  | Malignant neoplasm of cerebral ventricle                                                    | Diagnosis | ICD-10-CM |
| C71.6  | Malignant neoplasm of cerebellum                                                            | Diagnosis | ICD-10-CM |
| C71.7  | Malignant neoplasm of brain stem                                                            | Diagnosis | ICD-10-CM |
| C71.8  | Malignant neoplasm of overlapping sites of brain                                            | Diagnosis | ICD-10-CM |
| C71.9  | Malignant neoplasm of brain, unspecified                                                    | Diagnosis | ICD-10-CM |
| C72    | Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system | Diagnosis | ICD-10-CM |
| C72.0  | Malignant neoplasm of spinal cord                                                           | Diagnosis | ICD-10-CM |
| C72.1  | Malignant neoplasm of cauda equina                                                          | Diagnosis | ICD-10-CM |
| C72.2  | Malignant neoplasm of olfactory nerve                                                       | Diagnosis | ICD-10-CM |
| C72.20 | Malignant neoplasm of unspecified olfactory nerve                                           | Diagnosis | ICD-10-CM |
| C72.21 | Malignant neoplasm of right olfactory nerve                                                 | Diagnosis | ICD-10-CM |
| C72.22 | Malignant neoplasm of left olfactory nerve                                                  | Diagnosis | ICD-10-CM |
| C72.3  | Malignant neoplasm of optic nerve                                                           | Diagnosis | ICD-10-CM |
| C72.30 | Malignant neoplasm of unspecified optic nerve                                               | Diagnosis | ICD-10-CM |
| C72.31 | Malignant neoplasm of right optic nerve                                                     | Diagnosis | ICD-10-CM |
| C72.32 | Malignant neoplasm of left optic nerve                                                      | Diagnosis | ICD-10-CM |
| C72.4  | Malignant neoplasm of acoustic nerve                                                        | Diagnosis | ICD-10-CM |
| C72.40 | Malignant neoplasm of unspecified acoustic nerve                                            | Diagnosis | ICD-10-CM |
| C72.41 | Malignant neoplasm of right acoustic nerve                                                  | Diagnosis | ICD-10-CM |
| C72.42 | Malignant neoplasm of left acoustic nerve                                                   | Diagnosis | ICD-10-CM |
| C72.5  | Malignant neoplasm of other and unspecified cranial nerves                                  | Diagnosis | ICD-10-CM |
| C72.50 | Malignant neoplasm of unspecified cranial nerve                                             | Diagnosis | ICD-10-CM |
| C72.59 | Malignant neoplasm of other cranial nerves                                                  | Diagnosis | ICD-10-CM |
| C72.9  | Malignant neoplasm of central nervous system, unspecified                                   | Diagnosis | ICD-10-CM |
| C73    | Malignant neoplasm of thyroid gland                                                         | Diagnosis | ICD-10-CM |
| C74    | Malignant neoplasm of adrenal gland                                                         | Diagnosis | ICD-10-CM |
| C74.0  | Malignant neoplasm of cortex of adrenal gland                                               | Diagnosis | ICD-10-CM |
| C74.00 | Malignant neoplasm of cortex of unspecified adrenal gland                                   | Diagnosis | ICD-10-CM |
| C74.01 | Malignant neoplasm of cortex of right adrenal gland                                         | Diagnosis | ICD-10-CM |
| C74.02 | Malignant neoplasm of cortex of left adrenal gland                                          | Diagnosis | ICD-10-CM |
| C74.1  | Malignant neoplasm of medulla of adrenal gland                                              | Diagnosis | ICD-10-CM |
| C74.10 | Malignant neoplasm of medulla of unspecified adrenal gland                                  | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                         | Code      |           |
|--------|-------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                     | Category  | Code Type |
| C74.11 | Malignant neoplasm of medulla of right adrenal gland                                | Diagnosis | ICD-10-CM |
| C74.12 | Malignant neoplasm of medulla of left adrenal gland                                 | Diagnosis | ICD-10-CM |
| C74.9  | Malignant neoplasm of unspecified part of adrenal gland                             | Diagnosis | ICD-10-CM |
| C74.90 | Malignant neoplasm of unspecified part of unspecified adrenal gland                 | Diagnosis | ICD-10-CM |
| C74.91 | Malignant neoplasm of unspecified part of right adrenal gland                       | Diagnosis | ICD-10-CM |
| C74.92 | Malignant neoplasm of unspecified part of left adrenal gland                        | Diagnosis | ICD-10-CM |
| C75    | Malignant neoplasm of other endocrine glands and related structures                 | Diagnosis | ICD-10-CM |
| C75.0  | Malignant neoplasm of parathyroid gland                                             | Diagnosis | ICD-10-CM |
| C75.1  | Malignant neoplasm of pituitary gland                                               | Diagnosis | ICD-10-CM |
| C75.2  | Malignant neoplasm of craniopharyngeal duct                                         | Diagnosis | ICD-10-CM |
| C75.3  | Malignant neoplasm of pineal gland                                                  | Diagnosis | ICD-10-CM |
| C75.4  | Malignant neoplasm of carotid body                                                  | Diagnosis | ICD-10-CM |
| C75.5  | Malignant neoplasm of aortic body and other paraganglia                             | Diagnosis | ICD-10-CM |
| C75.8  | Malignant neoplasm with pluriglandular involvement, unspecified                     | Diagnosis | ICD-10-CM |
| C75.9  | Malignant neoplasm of endocrine gland, unspecified                                  | Diagnosis | ICD-10-CM |
| C76    | Malignant neoplasm of other and ill-defined sites                                   | Diagnosis | ICD-10-CM |
| C76.0  | Malignant neoplasm of head, face and neck                                           | Diagnosis | ICD-10-CM |
| C76.1  | Malignant neoplasm of thorax                                                        | Diagnosis | ICD-10-CM |
| C76.2  | Malignant neoplasm of abdomen                                                       | Diagnosis | ICD-10-CM |
| C76.3  | Malignant neoplasm of pelvis                                                        | Diagnosis | ICD-10-CM |
| C76.4  | Malignant neoplasm of upper limb                                                    | Diagnosis | ICD-10-CM |
| C76.40 | Malignant neoplasm of unspecified upper limb                                        | Diagnosis | ICD-10-CM |
| C76.41 | Malignant neoplasm of right upper limb                                              | Diagnosis | ICD-10-CM |
| C76.42 | Malignant neoplasm of left upper limb                                               | Diagnosis | ICD-10-CM |
| C76.5  | Malignant neoplasm of lower limb                                                    | Diagnosis | ICD-10-CM |
| C76.50 | Malignant neoplasm of unspecified lower limb                                        | Diagnosis | ICD-10-CM |
| C76.51 | Malignant neoplasm of right lower limb                                              | Diagnosis | ICD-10-CM |
| C76.52 | Malignant neoplasm of left lower limb                                               | Diagnosis | ICD-10-CM |
| C76.8  | Malignant neoplasm of other specified ill-defined sites                             | Diagnosis | ICD-10-CM |
| C77    | Secondary and unspecified malignant neoplasm of lymph nodes                         | Diagnosis | ICD-10-CM |
| C77.0  | Secondary and unspecified malignant neoplasm of lymph nodes of head, face and neck  | Diagnosis | ICD-10-CM |
| C77.1  | Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes           | Diagnosis | ICD-10-CM |
| C77.2  | Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes         | Diagnosis | ICD-10-CM |
| C77.3  | Secondary and unspecified malignant neoplasm of axilla and upper limb lymph nodes   | Diagnosis | ICD-10-CM |
| C77.4  | Secondary and unspecified malignant neoplasm of inguinal and lower limb lymph nodes | Diagnosis | ICD-10-CM |
| C77.5  | Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes             | Diagnosis | ICD-10-CM |
| C77.8  | Secondary and unspecified malignant neoplasm of lymph nodes of multiple regions     | Diagnosis | ICD-10-CM |
| C77.9  | Secondary and unspecified malignant neoplasm of lymph node, unspecified             | Diagnosis | ICD-10-CM |
| C78    | Secondary malignant neoplasm of respiratory and digestive organs                    | Diagnosis | ICD-10-CM |
| C78.0  | Secondary malignant neoplasm of lung                                                | Diagnosis | ICD-10-CM |
| C78.00 | Secondary malignant neoplasm of unspecified lung                                    | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                      | Code      |           |
|--------|----------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                  | Category  | Code Type |
| C78.01 | Secondary malignant neoplasm of right lung                                       | Diagnosis | ICD-10-CM |
| C78.02 | Secondary malignant neoplasm of left lung                                        | Diagnosis | ICD-10-CM |
| C78.1  | Secondary malignant neoplasm of mediastinum                                      | Diagnosis | ICD-10-CM |
| C78.2  | Secondary malignant neoplasm of pleura                                           | Diagnosis | ICD-10-CM |
| C78.3  | Secondary malignant neoplasm of other and unspecified respiratory organs         | Diagnosis | ICD-10-CM |
| C78.30 | Secondary malignant neoplasm of unspecified respiratory organ                    | Diagnosis | ICD-10-CM |
| C78.39 | Secondary malignant neoplasm of other respiratory organs                         | Diagnosis | ICD-10-CM |
| C78.4  | Secondary malignant neoplasm of small intestine                                  | Diagnosis | ICD-10-CM |
| C78.5  | Secondary malignant neoplasm of large intestine and rectum                       | Diagnosis | ICD-10-CM |
| C78.6  | Secondary malignant neoplasm of retroperitoneum and peritoneum                   | Diagnosis | ICD-10-CM |
| C78.7  | Secondary malignant neoplasm of liver and intrahepatic bile duct                 | Diagnosis | ICD-10-CM |
| C78.8  | Secondary malignant neoplasm of other and unspecified digestive organs           | Diagnosis | ICD-10-CM |
| C78.80 | Secondary malignant neoplasm of unspecified digestive organ                      | Diagnosis | ICD-10-CM |
| C78.89 | Secondary malignant neoplasm of other digestive organs                           | Diagnosis | ICD-10-CM |
| C79    | Secondary malignant neoplasm of other and unspecified sites                      | Diagnosis | ICD-10-CM |
| C79.1  | Secondary malignant neoplasm of bladder and other and unspecified urinary organs | Diagnosis | ICD-10-CM |
| C79.10 | Secondary malignant neoplasm of unspecified urinary organs                       | Diagnosis | ICD-10-CM |
| C79.11 | Secondary malignant neoplasm of bladder                                          | Diagnosis | ICD-10-CM |
| C79.19 | Secondary malignant neoplasm of other urinary organs                             | Diagnosis | ICD-10-CM |
| C79.2  | Secondary malignant neoplasm of skin                                             | Diagnosis | ICD-10-CM |
| C79.3  | Secondary malignant neoplasm of brain and cerebral meninges                      | Diagnosis | ICD-10-CM |
| C79.31 | Secondary malignant neoplasm of brain                                            | Diagnosis | ICD-10-CM |
| C79.32 | Secondary malignant neoplasm of cerebral meninges                                | Diagnosis | ICD-10-CM |
| C79.4  | Secondary malignant neoplasm of other and unspecified parts of nervous system    | Diagnosis | ICD-10-CM |
| C79.40 | Secondary malignant neoplasm of unspecified part of nervous system               | Diagnosis | ICD-10-CM |
| C79.49 | Secondary malignant neoplasm of other parts of nervous system                    | Diagnosis | ICD-10-CM |
| C79.5  | Secondary malignant neoplasm of bone and bone marrow                             | Diagnosis | ICD-10-CM |
| C79.51 | Secondary malignant neoplasm of bone                                             | Diagnosis | ICD-10-CM |
| C79.52 | Secondary malignant neoplasm of bone marrow                                      | Diagnosis | ICD-10-CM |
| C79.6  | Secondary malignant neoplasm of ovary                                            | Diagnosis | ICD-10-CM |
| C79.60 | Secondary malignant neoplasm of unspecified ovary                                | Diagnosis | ICD-10-CM |
| C79.61 | Secondary malignant neoplasm of right ovary                                      | Diagnosis | ICD-10-CM |
| C79.62 | Secondary malignant neoplasm of left ovary                                       | Diagnosis | ICD-10-CM |
| C79.63 | Secondary malignant neoplasm of bilateral ovaries                                | Diagnosis | ICD-10-CM |
| C79.7  | Secondary malignant neoplasm of adrenal gland                                    | Diagnosis | ICD-10-CM |
| C79.70 | Secondary malignant neoplasm of unspecified adrenal gland                        | Diagnosis | ICD-10-CM |
| C79.71 | Secondary malignant neoplasm of right adrenal gland                              | Diagnosis | ICD-10-CM |
| C79.72 | Secondary malignant neoplasm of left adrenal gland                               | Diagnosis | ICD-10-CM |
| C79.8  | Secondary malignant neoplasm of other specified sites                            | Diagnosis | ICD-10-CM |
| C79.81 | Secondary malignant neoplasm of breast                                           | Diagnosis | ICD-10-CM |
| C79.82 | Secondary malignant neoplasm of genital organs                                   | Diagnosis | ICD-10-CM |
| C79.89 | Secondary malignant neoplasm of other specified sites                            | Diagnosis | ICD-10-CM |
| C79.9  | Secondary malignant neoplasm of unspecified site                                 | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                             | Code      |           |
|---------|-------------------------------------------------------------------------|-----------|-----------|
|         |                                                                         | Category  | Code Type |
| C7A     | Malignant neuroendocrine tumors                                         | Diagnosis | ICD-10-CM |
| C7A.0   | Malignant carcinoid tumors                                              | Diagnosis | ICD-10-CM |
| C7A.00  | Malignant carcinoid tumor of unspecified site                           | Diagnosis | ICD-10-CM |
| C7A.01  | Malignant carcinoid tumors of the small intestine                       | Diagnosis | ICD-10-CM |
| C7A.010 | Malignant carcinoid tumor of the duodenum                               | Diagnosis | ICD-10-CM |
| C7A.011 | Malignant carcinoid tumor of the jejunum                                | Diagnosis | ICD-10-CM |
| C7A.012 | Malignant carcinoid tumor of the ileum                                  | Diagnosis | ICD-10-CM |
| C7A.019 | Malignant carcinoid tumor of the small intestine, unspecified portion   | Diagnosis | ICD-10-CM |
| C7A.02  | Malignant carcinoid tumors of the appendix, large intestine, and rectum | Diagnosis | ICD-10-CM |
| C7A.020 | Malignant carcinoid tumor of the appendix                               | Diagnosis | ICD-10-CM |
| C7A.021 | Malignant carcinoid tumor of the cecum                                  | Diagnosis | ICD-10-CM |
| C7A.022 | Malignant carcinoid tumor of the ascending colon                        | Diagnosis | ICD-10-CM |
| C7A.023 | Malignant carcinoid tumor of the transverse colon                       | Diagnosis | ICD-10-CM |
| C7A.024 | Malignant carcinoid tumor of the descending colon                       | Diagnosis | ICD-10-CM |
| C7A.025 | Malignant carcinoid tumor of the sigmoid colon                          | Diagnosis | ICD-10-CM |
| C7A.026 | Malignant carcinoid tumor of the rectum                                 | Diagnosis | ICD-10-CM |
| C7A.029 | Malignant carcinoid tumor of the large intestine, unspecified portion   | Diagnosis | ICD-10-CM |
| C7A.09  | Malignant carcinoid tumors of other sites                               | Diagnosis | ICD-10-CM |
| C7A.090 | Malignant carcinoid tumor of the bronchus and lung                      | Diagnosis | ICD-10-CM |
| C7A.091 | Malignant carcinoid tumor of the thymus                                 | Diagnosis | ICD-10-CM |
| C7A.092 | Malignant carcinoid tumor of the stomach                                | Diagnosis | ICD-10-CM |
| C7A.094 | Malignant carcinoid tumor of the foregut, unspecified                   | Diagnosis | ICD-10-CM |
| C7A.095 | Malignant carcinoid tumor of the midgut, unspecified                    | Diagnosis | ICD-10-CM |
| C7A.096 | Malignant carcinoid tumor of the hindgut, unspecified                   | Diagnosis | ICD-10-CM |
| C7A.098 | Malignant carcinoid tumors of other sites                               | Diagnosis | ICD-10-CM |
| C7A.1   | Malignant poorly differentiated neuroendocrine tumors                   | Diagnosis | ICD-10-CM |
| C7A.8   | Other malignant neuroendocrine tumors                                   | Diagnosis | ICD-10-CM |
| C7B     | Secondary neuroendocrine tumors                                         | Diagnosis | ICD-10-CM |
| C7B.0   | Secondary carcinoid tumors                                              | Diagnosis | ICD-10-CM |
| C7B.00  | Secondary carcinoid tumors, unspecified site                            | Diagnosis | ICD-10-CM |
| C7B.01  | Secondary carcinoid tumors of distant lymph nodes                       | Diagnosis | ICD-10-CM |
| C7B.02  | Secondary carcinoid tumors of liver                                     | Diagnosis | ICD-10-CM |
| C7B.03  | Secondary carcinoid tumors of bone                                      | Diagnosis | ICD-10-CM |
| C7B.04  | Secondary carcinoid tumors of peritoneum                                | Diagnosis | ICD-10-CM |
| C7B.09  | Secondary carcinoid tumors of other sites                               | Diagnosis | ICD-10-CM |
| C7B.8   | Other secondary neuroendocrine tumors                                   | Diagnosis | ICD-10-CM |
| C80     | Malignant neoplasm without specification of site                        | Diagnosis | ICD-10-CM |
| C80.0   | Disseminated malignant neoplasm, unspecified                            | Diagnosis | ICD-10-CM |
| C80.1   | Malignant (primary) neoplasm, unspecified                               | Diagnosis | ICD-10-CM |
| C80.2   | Malignant neoplasm associated with transplanted organ                   | Diagnosis | ICD-10-CM |
| C81     | Hodgkin lymphoma                                                        | Diagnosis | ICD-10-CM |
| C81.0   | Nodular lymphocyte predominant Hodgkin lymphoma                         | Diagnosis | ICD-10-CM |
| C81.00  | Nodular lymphocyte predominant Hodgkin lymphoma, unspecified site       | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                    | Code      |           |
|--------|------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                | Category  | Code Type |
| C81.01 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C81.02 | Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C81.03 | Nodular lymphocyte predominant Hodgkin lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C81.04 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C81.05 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C81.06 | Nodular lymphocyte predominant Hodgkin lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C81.07 | Nodular lymphocyte predominant Hodgkin lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C81.08 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C81.09 | Nodular lymphocyte predominant Hodgkin lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C81.1  | Nodular sclerosis Hodgkin lymphoma                                                             | Diagnosis | ICD-10-CM |
| C81.10 | Nodular sclerosis Hodgkin lymphoma, unspecified site                                           | Diagnosis | ICD-10-CM |
| C81.11 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of head, face, and neck                        | Diagnosis | ICD-10-CM |
| C81.12 | Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes                                  | Diagnosis | ICD-10-CM |
| C81.13 | Nodular sclerosis Hodgkin lymphoma, intra-abdominal lymph nodes                                | Diagnosis | ICD-10-CM |
| C81.14 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of axilla and upper limb                       | Diagnosis | ICD-10-CM |
| C81.15 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of inguinal region and lower limb              | Diagnosis | ICD-10-CM |
| C81.16 | Nodular sclerosis Hodgkin lymphoma, intrapelvic lymph nodes                                    | Diagnosis | ICD-10-CM |
| C81.17 | Nodular sclerosis Hodgkin lymphoma, spleen                                                     | Diagnosis | ICD-10-CM |
| C81.18 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of multiple sites                              | Diagnosis | ICD-10-CM |
| C81.19 | Nodular sclerosis Hodgkin lymphoma, extranodal and solid organ sites                           | Diagnosis | ICD-10-CM |
| C81.2  | Mixed cellularity Hodgkin lymphoma                                                             | Diagnosis | ICD-10-CM |
| C81.20 | Mixed cellularity Hodgkin lymphoma, unspecified site                                           | Diagnosis | ICD-10-CM |
| C81.21 | Mixed cellularity Hodgkin lymphoma, lymph nodes of head, face, and neck                        | Diagnosis | ICD-10-CM |
| C81.22 | Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes                                  | Diagnosis | ICD-10-CM |
| C81.23 | Mixed cellularity Hodgkin lymphoma, intra-abdominal lymph nodes                                | Diagnosis | ICD-10-CM |
| C81.24 | Mixed cellularity Hodgkin lymphoma, lymph nodes of axilla and upper limb                       | Diagnosis | ICD-10-CM |
| C81.25 | Mixed cellularity Hodgkin lymphoma, lymph nodes of inguinal region and lower limb              | Diagnosis | ICD-10-CM |
| C81.26 | Mixed cellularity Hodgkin lymphoma, intrapelvic lymph nodes                                    | Diagnosis | ICD-10-CM |
| C81.27 | Mixed cellularity Hodgkin lymphoma, spleen                                                     | Diagnosis | ICD-10-CM |
| C81.28 | Mixed cellularity Hodgkin lymphoma, lymph nodes of multiple sites                              | Diagnosis | ICD-10-CM |
| C81.29 | Mixed cellularity Hodgkin lymphoma, extranodal and solid organ sites                           | Diagnosis | ICD-10-CM |
| C81.3  | Lymphocyte depleted Hodgkin lymphoma                                                           | Diagnosis | ICD-10-CM |
| C81.30 | Lymphocyte depleted Hodgkin lymphoma, unspecified site                                         | Diagnosis | ICD-10-CM |
| C81.31 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of head, face, and neck                      | Diagnosis | ICD-10-CM |
| C81.32 | Lymphocyte depleted Hodgkin lymphoma, intrathoracic lymph nodes                                | Diagnosis | ICD-10-CM |
| C81.33 | Lymphocyte depleted Hodgkin lymphoma, intra-abdominal lymph nodes                              | Diagnosis | ICD-10-CM |
| C81.34 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of axilla and upper limb                     | Diagnosis | ICD-10-CM |
| C81.35 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of inguinal region and lower limb            | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                     | Code      |           |
|--------|---------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                 | Category  | Code Type |
| C81.36 | Lymphocyte depleted Hodgkin lymphoma, intrapelvic lymph nodes                   | Diagnosis | ICD-10-CM |
| C81.37 | Lymphocyte depleted Hodgkin lymphoma, spleen                                    | Diagnosis | ICD-10-CM |
| C81.38 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of multiple sites             | Diagnosis | ICD-10-CM |
| C81.39 | Lymphocyte depleted Hodgkin lymphoma, extranodal and solid organ sites          | Diagnosis | ICD-10-CM |
| C81.4  | Lymphocyte-rich Hodgkin lymphoma                                                | Diagnosis | ICD-10-CM |
| C81.40 | Lymphocyte-rich Hodgkin lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C81.41 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C81.42 | Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C81.43 | Lymphocyte-rich Hodgkin lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C81.44 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C81.45 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C81.46 | Lymphocyte-rich Hodgkin lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C81.47 | Lymphocyte-rich Hodgkin lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C81.48 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C81.49 | Lymphocyte-rich Hodgkin lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C81.7  | Other Hodgkin lymphoma                                                          | Diagnosis | ICD-10-CM |
| C81.70 | Other Hodgkin lymphoma, unspecified site                                        | Diagnosis | ICD-10-CM |
| C81.71 | Other Hodgkin lymphoma, lymph nodes of head, face, and neck                     | Diagnosis | ICD-10-CM |
| C81.72 | Other Hodgkin lymphoma, intrathoracic lymph nodes                               | Diagnosis | ICD-10-CM |
| C81.73 | Other Hodgkin lymphoma, intra-abdominal lymph nodes                             | Diagnosis | ICD-10-CM |
| C81.74 | Other Hodgkin lymphoma, lymph nodes of axilla and upper limb                    | Diagnosis | ICD-10-CM |
| C81.75 | Other Hodgkin lymphoma, lymph nodes of inguinal region and lower limb           | Diagnosis | ICD-10-CM |
| C81.76 | Other Hodgkin lymphoma, intrapelvic lymph nodes                                 | Diagnosis | ICD-10-CM |
| C81.77 | Other Hodgkin lymphoma, spleen                                                  | Diagnosis | ICD-10-CM |
| C81.78 | Other Hodgkin lymphoma, lymph nodes of multiple sites                           | Diagnosis | ICD-10-CM |
| C81.79 | Other Hodgkin lymphoma, extranodal and solid organ sites                        | Diagnosis | ICD-10-CM |
| C81.9  | Hodgkin lymphoma, unspecified                                                   | Diagnosis | ICD-10-CM |
| C81.90 | Hodgkin lymphoma, unspecified, unspecified site                                 | Diagnosis | ICD-10-CM |
| C81.91 | Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck              | Diagnosis | ICD-10-CM |
| C81.92 | Hodgkin lymphoma, unspecified, intrathoracic lymph nodes                        | Diagnosis | ICD-10-CM |
| C81.93 | Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes                      | Diagnosis | ICD-10-CM |
| C81.94 | Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb             | Diagnosis | ICD-10-CM |
| C81.95 | Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-10-CM |
| C81.96 | Hodgkin lymphoma, unspecified, intrapelvic lymph nodes                          | Diagnosis | ICD-10-CM |
| C81.97 | Hodgkin lymphoma, unspecified, spleen                                           | Diagnosis | ICD-10-CM |
| C81.98 | Hodgkin lymphoma, unspecified, lymph nodes of multiple sites                    | Diagnosis | ICD-10-CM |
| C81.99 | Hodgkin lymphoma, unspecified, extranodal and solid organ sites                 | Diagnosis | ICD-10-CM |
| C82    | Follicular lymphoma                                                             | Diagnosis | ICD-10-CM |
| C82.0  | Follicular lymphoma grade I                                                     | Diagnosis | ICD-10-CM |
| C82.00 | Follicular lymphoma grade I, unspecified site                                   | Diagnosis | ICD-10-CM |
| C82.01 | Follicular lymphoma grade I, lymph nodes of head, face, and neck                | Diagnosis | ICD-10-CM |
| C82.02 | Follicular lymphoma grade I, intrathoracic lymph nodes                          | Diagnosis | ICD-10-CM |
| C82.03 | Follicular lymphoma grade I, intra-abdominal lymph nodes                        | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                               | Code      |           |
|--------|-------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                           | Category  | Code Type |
| C82.04 | Follicular lymphoma grade I, lymph nodes of axilla and upper limb                         | Diagnosis | ICD-10-CM |
| C82.05 | Follicular lymphoma grade I, lymph nodes of inguinal region and lower limb                | Diagnosis | ICD-10-CM |
| C82.06 | Follicular lymphoma grade I, intrapelvic lymph nodes                                      | Diagnosis | ICD-10-CM |
| C82.07 | Follicular lymphoma grade I, spleen                                                       | Diagnosis | ICD-10-CM |
| C82.08 | Follicular lymphoma grade I, lymph nodes of multiple sites                                | Diagnosis | ICD-10-CM |
| C82.09 | Follicular lymphoma grade I, extranodal and solid organ sites                             | Diagnosis | ICD-10-CM |
| C82.1  | Follicular lymphoma grade II                                                              | Diagnosis | ICD-10-CM |
| C82.10 | Follicular lymphoma grade II, unspecified site                                            | Diagnosis | ICD-10-CM |
| C82.11 | Follicular lymphoma grade II, lymph nodes of head, face, and neck                         | Diagnosis | ICD-10-CM |
| C82.12 | Follicular lymphoma grade II, intrathoracic lymph nodes                                   | Diagnosis | ICD-10-CM |
| C82.13 | Follicular lymphoma grade II, intra-abdominal lymph nodes                                 | Diagnosis | ICD-10-CM |
| C82.14 | Follicular lymphoma grade II, lymph nodes of axilla and upper limb                        | Diagnosis | ICD-10-CM |
| C82.15 | Follicular lymphoma grade II, lymph nodes of inguinal region and lower limb               | Diagnosis | ICD-10-CM |
| C82.16 | Follicular lymphoma grade II, intrapelvic lymph nodes                                     | Diagnosis | ICD-10-CM |
| C82.17 | Follicular lymphoma grade II, spleen                                                      | Diagnosis | ICD-10-CM |
| C82.18 | Follicular lymphoma grade II, lymph nodes of multiple sites                               | Diagnosis | ICD-10-CM |
| C82.19 | Follicular lymphoma grade II, extranodal and solid organ sites                            | Diagnosis | ICD-10-CM |
| C82.2  | Follicular lymphoma grade III, unspecified                                                | Diagnosis | ICD-10-CM |
| C82.20 | Follicular lymphoma grade III, unspecified, unspecified site                              | Diagnosis | ICD-10-CM |
| C82.21 | Follicular lymphoma grade III, unspecified, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C82.22 | Follicular lymphoma grade III, unspecified, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.23 | Follicular lymphoma grade III, unspecified, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C82.24 | Follicular lymphoma grade III, unspecified, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C82.25 | Follicular lymphoma grade III, unspecified, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C82.26 | Follicular lymphoma grade III, unspecified, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.27 | Follicular lymphoma grade III, unspecified, spleen                                        | Diagnosis | ICD-10-CM |
| C82.28 | Follicular lymphoma grade III, unspecified, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C82.29 | Follicular lymphoma grade III, unspecified, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C82.3  | Follicular lymphoma grade IIIa                                                            | Diagnosis | ICD-10-CM |
| C82.30 | Follicular lymphoma grade IIIa, unspecified site                                          | Diagnosis | ICD-10-CM |
| C82.31 | Follicular lymphoma grade IIIa, lymph nodes of head, face, and neck                       | Diagnosis | ICD-10-CM |
| C82.32 | Follicular lymphoma grade IIIa, intrathoracic lymph nodes                                 | Diagnosis | ICD-10-CM |
| C82.33 | Follicular lymphoma grade IIIa, intra-abdominal lymph nodes                               | Diagnosis | ICD-10-CM |
| C82.34 | Follicular lymphoma grade IIIa, lymph nodes of axilla and upper limb                      | Diagnosis | ICD-10-CM |
| C82.35 | Follicular lymphoma grade IIIa, lymph nodes of inguinal region and lower limb             | Diagnosis | ICD-10-CM |
| C82.36 | Follicular lymphoma grade IIIa, intrapelvic lymph nodes                                   | Diagnosis | ICD-10-CM |
| C82.37 | Follicular lymphoma grade IIIa, spleen                                                    | Diagnosis | ICD-10-CM |
| C82.38 | Follicular lymphoma grade IIIa, lymph nodes of multiple sites                             | Diagnosis | ICD-10-CM |
| C82.39 | Follicular lymphoma grade IIIa, extranodal and solid organ sites                          | Diagnosis | ICD-10-CM |
| C82.4  | Follicular lymphoma grade IIIb                                                            | Diagnosis | ICD-10-CM |
| C82.40 | Follicular lymphoma grade IIIb, unspecified site                                          | Diagnosis | ICD-10-CM |
| C82.41 | Follicular lymphoma grade IIIb, lymph nodes of head, face, and neck                       | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                       | Code      |           |
|--------|-----------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                   | Category  | Code Type |
| C82.42 | Follicular lymphoma grade IIIb, intrathoracic lymph nodes                         | Diagnosis | ICD-10-CM |
| C82.43 | Follicular lymphoma grade IIIb, intra-abdominal lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.44 | Follicular lymphoma grade IIIb, lymph nodes of axilla and upper limb              | Diagnosis | ICD-10-CM |
| C82.45 | Follicular lymphoma grade IIIb, lymph nodes of inguinal region and lower limb     | Diagnosis | ICD-10-CM |
| C82.46 | Follicular lymphoma grade IIIb, intrapelvic lymph nodes                           | Diagnosis | ICD-10-CM |
| C82.47 | Follicular lymphoma grade IIIb, spleen                                            | Diagnosis | ICD-10-CM |
| C82.48 | Follicular lymphoma grade IIIb, lymph nodes of multiple sites                     | Diagnosis | ICD-10-CM |
| C82.49 | Follicular lymphoma grade IIIb, extranodal and solid organ sites                  | Diagnosis | ICD-10-CM |
| C82.5  | Diffuse follicle center lymphoma                                                  | Diagnosis | ICD-10-CM |
| C82.50 | Diffuse follicle center lymphoma, unspecified site                                | Diagnosis | ICD-10-CM |
| C82.51 | Diffuse follicle center lymphoma, lymph nodes of head, face, and neck             | Diagnosis | ICD-10-CM |
| C82.52 | Diffuse follicle center lymphoma, intrathoracic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.53 | Diffuse follicle center lymphoma, intra-abdominal lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.54 | Diffuse follicle center lymphoma, lymph nodes of axilla and upper limb            | Diagnosis | ICD-10-CM |
| C82.55 | Diffuse follicle center lymphoma, lymph nodes of inguinal region and lower limb   | Diagnosis | ICD-10-CM |
| C82.56 | Diffuse follicle center lymphoma, intrapelvic lymph nodes                         | Diagnosis | ICD-10-CM |
| C82.57 | Diffuse follicle center lymphoma, spleen                                          | Diagnosis | ICD-10-CM |
| C82.58 | Diffuse follicle center lymphoma, lymph nodes of multiple sites                   | Diagnosis | ICD-10-CM |
| C82.59 | Diffuse follicle center lymphoma, extranodal and solid organ sites                | Diagnosis | ICD-10-CM |
| C82.6  | Cutaneous follicle center lymphoma                                                | Diagnosis | ICD-10-CM |
| C82.60 | Cutaneous follicle center lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C82.61 | Cutaneous follicle center lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C82.62 | Cutaneous follicle center lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.63 | Cutaneous follicle center lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C82.64 | Cutaneous follicle center lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C82.65 | Cutaneous follicle center lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C82.66 | Cutaneous follicle center lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.67 | Cutaneous follicle center lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C82.68 | Cutaneous follicle center lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C82.69 | Cutaneous follicle center lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C82.8  | Other types of follicular lymphoma                                                | Diagnosis | ICD-10-CM |
| C82.80 | Other types of follicular lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C82.81 | Other types of follicular lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C82.82 | Other types of follicular lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.83 | Other types of follicular lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C82.84 | Other types of follicular lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C82.85 | Other types of follicular lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C82.86 | Other types of follicular lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.87 | Other types of follicular lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C82.88 | Other types of follicular lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C82.89 | Other types of follicular lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C82.9  | Follicular lymphoma, unspecified                                                  | Diagnosis | ICD-10-CM |
| C82.90 | Follicular lymphoma, unspecified, unspecified site                                | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                     | Code      |           |
|--------|---------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                 | Category  | Code Type |
| C82.91 | Follicular lymphoma, unspecified, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C82.92 | Follicular lymphoma, unspecified, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.93 | Follicular lymphoma, unspecified, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C82.94 | Follicular lymphoma, unspecified, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C82.95 | Follicular lymphoma, unspecified, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C82.96 | Follicular lymphoma, unspecified, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.97 | Follicular lymphoma, unspecified, spleen                                        | Diagnosis | ICD-10-CM |
| C82.98 | Follicular lymphoma, unspecified, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C82.99 | Follicular lymphoma, unspecified, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C83    | Non-follicular lymphoma                                                         | Diagnosis | ICD-10-CM |
| C83.0  | Small cell B-cell lymphoma                                                      | Diagnosis | ICD-10-CM |
| C83.00 | Small cell B-cell lymphoma, unspecified site                                    | Diagnosis | ICD-10-CM |
| C83.01 | Small cell B-cell lymphoma, lymph nodes of head, face, and neck                 | Diagnosis | ICD-10-CM |
| C83.02 | Small cell B-cell lymphoma, intrathoracic lymph nodes                           | Diagnosis | ICD-10-CM |
| C83.03 | Small cell B-cell lymphoma, intra-abdominal lymph nodes                         | Diagnosis | ICD-10-CM |
| C83.04 | Small cell B-cell lymphoma, lymph nodes of axilla and upper limb                | Diagnosis | ICD-10-CM |
| C83.05 | Small cell B-cell lymphoma, lymph nodes of inguinal region and lower limb       | Diagnosis | ICD-10-CM |
| C83.06 | Small cell B-cell lymphoma, intrapelvic lymph nodes                             | Diagnosis | ICD-10-CM |
| C83.07 | Small cell B-cell lymphoma, spleen                                              | Diagnosis | ICD-10-CM |
| C83.08 | Small cell B-cell lymphoma, lymph nodes of multiple sites                       | Diagnosis | ICD-10-CM |
| C83.09 | Small cell B-cell lymphoma, extranodal and solid organ sites                    | Diagnosis | ICD-10-CM |
| C83.1  | Mantle cell lymphoma                                                            | Diagnosis | ICD-10-CM |
| C83.10 | Mantle cell lymphoma, unspecified site                                          | Diagnosis | ICD-10-CM |
| C83.11 | Mantle cell lymphoma, lymph nodes of head, face, and neck                       | Diagnosis | ICD-10-CM |
| C83.12 | Mantle cell lymphoma, intrathoracic lymph nodes                                 | Diagnosis | ICD-10-CM |
| C83.13 | Mantle cell lymphoma, intra-abdominal lymph nodes                               | Diagnosis | ICD-10-CM |
| C83.14 | Mantle cell lymphoma, lymph nodes of axilla and upper limb                      | Diagnosis | ICD-10-CM |
| C83.15 | Mantle cell lymphoma, lymph nodes of inguinal region and lower limb             | Diagnosis | ICD-10-CM |
| C83.16 | Mantle cell lymphoma, intrapelvic lymph nodes                                   | Diagnosis | ICD-10-CM |
| C83.17 | Mantle cell lymphoma, spleen                                                    | Diagnosis | ICD-10-CM |
| C83.18 | Mantle cell lymphoma, lymph nodes of multiple sites                             | Diagnosis | ICD-10-CM |
| C83.19 | Mantle cell lymphoma, extranodal and solid organ sites                          | Diagnosis | ICD-10-CM |
| C83.3  | Diffuse large B-cell lymphoma                                                   | Diagnosis | ICD-10-CM |
| C83.30 | Diffuse large B-cell lymphoma, unspecified site                                 | Diagnosis | ICD-10-CM |
| C83.31 | Diffuse large B-cell lymphoma, lymph nodes of head, face, and neck              | Diagnosis | ICD-10-CM |
| C83.32 | Diffuse large B-cell lymphoma, intrathoracic lymph nodes                        | Diagnosis | ICD-10-CM |
| C83.33 | Diffuse large B-cell lymphoma, intra-abdominal lymph nodes                      | Diagnosis | ICD-10-CM |
| C83.34 | Diffuse large B-cell lymphoma, lymph nodes of axilla and upper limb             | Diagnosis | ICD-10-CM |
| C83.35 | Diffuse large B-cell lymphoma, lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-10-CM |
| C83.36 | Diffuse large B-cell lymphoma, intrapelvic lymph nodes                          | Diagnosis | ICD-10-CM |
| C83.37 | Diffuse large B-cell lymphoma, spleen                                           | Diagnosis | ICD-10-CM |
| C83.38 | Diffuse large B-cell lymphoma, lymph nodes of multiple sites                    | Diagnosis | ICD-10-CM |
| C83.39 | Diffuse large B-cell lymphoma, extranodal and solid organ sites                 | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                   | Code      |           |
|--------|-----------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                               | Category  | Code Type |
| C83.5  | Lymphoblastic (diffuse) lymphoma                                                              | Diagnosis | ICD-10-CM |
| C83.50 | Lymphoblastic (diffuse) lymphoma, unspecified site                                            | Diagnosis | ICD-10-CM |
| C83.51 | Lymphoblastic (diffuse) lymphoma, lymph nodes of head, face, and neck                         | Diagnosis | ICD-10-CM |
| C83.52 | Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes                                   | Diagnosis | ICD-10-CM |
| C83.53 | Lymphoblastic (diffuse) lymphoma, intra-abdominal lymph nodes                                 | Diagnosis | ICD-10-CM |
| C83.54 | Lymphoblastic (diffuse) lymphoma, lymph nodes of axilla and upper limb                        | Diagnosis | ICD-10-CM |
| C83.55 | Lymphoblastic (diffuse) lymphoma, lymph nodes of inguinal region and lower limb               | Diagnosis | ICD-10-CM |
| C83.56 | Lymphoblastic (diffuse) lymphoma, intrapelvic lymph nodes                                     | Diagnosis | ICD-10-CM |
| C83.57 | Lymphoblastic (diffuse) lymphoma, spleen                                                      | Diagnosis | ICD-10-CM |
| C83.58 | Lymphoblastic (diffuse) lymphoma, lymph nodes of multiple sites                               | Diagnosis | ICD-10-CM |
| C83.59 | Lymphoblastic (diffuse) lymphoma, extranodal and solid organ sites                            | Diagnosis | ICD-10-CM |
| C83.7  | Burkitt lymphoma                                                                              | Diagnosis | ICD-10-CM |
| C83.70 | Burkitt lymphoma, unspecified site                                                            | Diagnosis | ICD-10-CM |
| C83.71 | Burkitt lymphoma, lymph nodes of head, face, and neck                                         | Diagnosis | ICD-10-CM |
| C83.72 | Burkitt lymphoma, intrathoracic lymph nodes                                                   | Diagnosis | ICD-10-CM |
| C83.73 | Burkitt lymphoma, intra-abdominal lymph nodes                                                 | Diagnosis | ICD-10-CM |
| C83.74 | Burkitt lymphoma, lymph nodes of axilla and upper limb                                        | Diagnosis | ICD-10-CM |
| C83.75 | Burkitt lymphoma, lymph nodes of inguinal region and lower limb                               | Diagnosis | ICD-10-CM |
| C83.76 | Burkitt lymphoma, intrapelvic lymph nodes                                                     | Diagnosis | ICD-10-CM |
| C83.77 | Burkitt lymphoma, spleen                                                                      | Diagnosis | ICD-10-CM |
| C83.78 | Burkitt lymphoma, lymph nodes of multiple sites                                               | Diagnosis | ICD-10-CM |
| C83.79 | Burkitt lymphoma, extranodal and solid organ sites                                            | Diagnosis | ICD-10-CM |
| C83.8  | Other non-follicular lymphoma                                                                 | Diagnosis | ICD-10-CM |
| C83.80 | Other non-follicular lymphoma, unspecified site                                               | Diagnosis | ICD-10-CM |
| C83.81 | Other non-follicular lymphoma, lymph nodes of head, face, and neck                            | Diagnosis | ICD-10-CM |
| C83.82 | Other non-follicular lymphoma, intrathoracic lymph nodes                                      | Diagnosis | ICD-10-CM |
| C83.83 | Other non-follicular lymphoma, intra-abdominal lymph nodes                                    | Diagnosis | ICD-10-CM |
| C83.84 | Other non-follicular lymphoma, lymph nodes of axilla and upper limb                           | Diagnosis | ICD-10-CM |
| C83.85 | Other non-follicular lymphoma, lymph nodes of inguinal region and lower limb                  | Diagnosis | ICD-10-CM |
| C83.86 | Other non-follicular lymphoma, intrapelvic lymph nodes                                        | Diagnosis | ICD-10-CM |
| C83.87 | Other non-follicular lymphoma, spleen                                                         | Diagnosis | ICD-10-CM |
| C83.88 | Other non-follicular lymphoma, lymph nodes of multiple sites                                  | Diagnosis | ICD-10-CM |
| C83.89 | Other non-follicular lymphoma, extranodal and solid organ sites                               | Diagnosis | ICD-10-CM |
| C83.9  | Non-follicular (diffuse) lymphoma, unspecified                                                | Diagnosis | ICD-10-CM |
| C83.90 | Non-follicular (diffuse) lymphoma, unspecified, unspecified site                              | Diagnosis | ICD-10-CM |
| C83.91 | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C83.92 | Non-follicular (diffuse) lymphoma, unspecified, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C83.93 | Non-follicular (diffuse) lymphoma, unspecified, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C83.94 | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C83.95 | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C83.96 | Non-follicular (diffuse) lymphoma, unspecified, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C83.97 | Non-follicular (diffuse) lymphoma, unspecified, spleen                                        | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                               | Code      |           |
|--------|-------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                           | Category  | Code Type |
| C83.98 | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of multiple sites             | Diagnosis | ICD-10-CM |
| C83.99 | Non-follicular (diffuse) lymphoma, unspecified, extranodal and solid organ sites          | Diagnosis | ICD-10-CM |
| C84    | Mature T/NK-cell lymphomas                                                                | Diagnosis | ICD-10-CM |
| C84.0  | Mycosis fungoides                                                                         | Diagnosis | ICD-10-CM |
| C84.00 | Mycosis fungoides, unspecified site                                                       | Diagnosis | ICD-10-CM |
| C84.01 | Mycosis fungoides, lymph nodes of head, face, and neck                                    | Diagnosis | ICD-10-CM |
| C84.02 | Mycosis fungoides, intrathoracic lymph nodes                                              | Diagnosis | ICD-10-CM |
| C84.03 | Mycosis fungoides, intra-abdominal lymph nodes                                            | Diagnosis | ICD-10-CM |
| C84.04 | Mycosis fungoides, lymph nodes of axilla and upper limb                                   | Diagnosis | ICD-10-CM |
| C84.05 | Mycosis fungoides, lymph nodes of inguinal region and lower limb                          | Diagnosis | ICD-10-CM |
| C84.06 | Mycosis fungoides, intrapelvic lymph nodes                                                | Diagnosis | ICD-10-CM |
| C84.07 | Mycosis fungoides, spleen                                                                 | Diagnosis | ICD-10-CM |
| C84.08 | Mycosis fungoides, lymph nodes of multiple sites                                          | Diagnosis | ICD-10-CM |
| C84.09 | Mycosis fungoides, extranodal and solid organ sites                                       | Diagnosis | ICD-10-CM |
| C84.1  | Sezary disease                                                                            | Diagnosis | ICD-10-CM |
| C84.10 | Sezary disease, unspecified site                                                          | Diagnosis | ICD-10-CM |
| C84.11 | Sezary disease, lymph nodes of head, face, and neck                                       | Diagnosis | ICD-10-CM |
| C84.12 | Sezary disease, intrathoracic lymph nodes                                                 | Diagnosis | ICD-10-CM |
| C84.13 | Sezary disease, intra-abdominal lymph nodes                                               | Diagnosis | ICD-10-CM |
| C84.14 | Sezary disease, lymph nodes of axilla and upper limb                                      | Diagnosis | ICD-10-CM |
| C84.15 | Sezary disease, lymph nodes of inguinal region and lower limb                             | Diagnosis | ICD-10-CM |
| C84.16 | Sezary disease, intrapelvic lymph nodes                                                   | Diagnosis | ICD-10-CM |
| C84.17 | Sezary disease, spleen                                                                    | Diagnosis | ICD-10-CM |
| C84.18 | Sezary disease, lymph nodes of multiple sites                                             | Diagnosis | ICD-10-CM |
| C84.19 | Sezary disease, extranodal and solid organ sites                                          | Diagnosis | ICD-10-CM |
| C84.4  | Peripheral T-cell lymphoma, not classified                                                | Diagnosis | ICD-10-CM |
| C84.40 | Peripheral T-cell lymphoma, not classified, unspecified site                              | Diagnosis | ICD-10-CM |
| C84.41 | Peripheral T-cell lymphoma, not classified, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C84.42 | Peripheral T-cell lymphoma, not classified, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C84.43 | Peripheral T-cell lymphoma, not classified, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C84.44 | Peripheral T-cell lymphoma, not classified, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C84.45 | Peripheral T-cell lymphoma, not classified, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C84.46 | Peripheral T-cell lymphoma, not classified, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C84.47 | Peripheral T-cell lymphoma, not classified, spleen                                        | Diagnosis | ICD-10-CM |
| C84.48 | Peripheral T-cell lymphoma, not classified, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C84.49 | Peripheral T-cell lymphoma, not classified, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C84.6  | Anaplastic large cell lymphoma, ALK-positive                                              | Diagnosis | ICD-10-CM |
| C84.60 | Anaplastic large cell lymphoma, ALK-positive, unspecified site                            | Diagnosis | ICD-10-CM |
| C84.61 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of head, face, and neck         | Diagnosis | ICD-10-CM |
| C84.62 | Anaplastic large cell lymphoma, ALK-positive, intrathoracic lymph nodes                   | Diagnosis | ICD-10-CM |
| C84.63 | Anaplastic large cell lymphoma, ALK-positive, intra-abdominal lymph nodes                 | Diagnosis | ICD-10-CM |
| C84.64 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of axilla and upper limb        | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                 | Code      |           |
|--------|---------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                             | Category  | Code Type |
| C84.65 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C84.66 | Anaplastic large cell lymphoma, ALK-positive, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C84.67 | Anaplastic large cell lymphoma, ALK-positive, spleen                                        | Diagnosis | ICD-10-CM |
| C84.68 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C84.69 | Anaplastic large cell lymphoma, ALK-positive, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C84.7  | Anaplastic large cell lymphoma, ALK-negative                                                | Diagnosis | ICD-10-CM |
| C84.70 | Anaplastic large cell lymphoma, ALK-negative, unspecified site                              | Diagnosis | ICD-10-CM |
| C84.71 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C84.72 | Anaplastic large cell lymphoma, ALK-negative, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C84.73 | Anaplastic large cell lymphoma, ALK-negative, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C84.74 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C84.75 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C84.76 | Anaplastic large cell lymphoma, ALK-negative, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C84.77 | Anaplastic large cell lymphoma, ALK-negative, spleen                                        | Diagnosis | ICD-10-CM |
| C84.78 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C84.79 | Anaplastic large cell lymphoma, ALK-negative, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C84.9  | Mature T/NK-cell lymphomas, unspecified                                                     | Diagnosis | ICD-10-CM |
| C84.90 | Mature T/NK-cell lymphomas, unspecified, unspecified site                                   | Diagnosis | ICD-10-CM |
| C84.91 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of head, face, and neck                | Diagnosis | ICD-10-CM |
| C84.92 | Mature T/NK-cell lymphomas, unspecified, intrathoracic lymph nodes                          | Diagnosis | ICD-10-CM |
| C84.93 | Mature T/NK-cell lymphomas, unspecified, intra-abdominal lymph nodes                        | Diagnosis | ICD-10-CM |
| C84.94 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of axilla and upper limb               | Diagnosis | ICD-10-CM |
| C84.95 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of inguinal region and lower limb      | Diagnosis | ICD-10-CM |
| C84.96 | Mature T/NK-cell lymphomas, unspecified, intrapelvic lymph nodes                            | Diagnosis | ICD-10-CM |
| C84.97 | Mature T/NK-cell lymphomas, unspecified, spleen                                             | Diagnosis | ICD-10-CM |
| C84.98 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of multiple sites                      | Diagnosis | ICD-10-CM |
| C84.99 | Mature T/NK-cell lymphomas, unspecified, extranodal and solid organ sites                   | Diagnosis | ICD-10-CM |
| C84.A  | Cutaneous T-cell lymphoma, unspecified                                                      | Diagnosis | ICD-10-CM |
| C84.A0 | Cutaneous T-cell lymphoma, unspecified, unspecified site                                    | Diagnosis | ICD-10-CM |
| C84.A1 | Cutaneous T-cell lymphoma, unspecified lymph nodes of head, face, and neck                  | Diagnosis | ICD-10-CM |
| C84.A2 | Cutaneous T-cell lymphoma, unspecified, intrathoracic lymph nodes                           | Diagnosis | ICD-10-CM |
| C84.A3 | Cutaneous T-cell lymphoma, unspecified, intra-abdominal lymph nodes                         | Diagnosis | ICD-10-CM |
| C84.A4 | Cutaneous T-cell lymphoma, unspecified, lymph nodes of axilla and upper limb                | Diagnosis | ICD-10-CM |
| C84.A5 | Cutaneous T-cell lymphoma, unspecified, lymph nodes of inguinal region and lower limb       | Diagnosis | ICD-10-CM |
| C84.A6 | Cutaneous T-cell lymphoma, unspecified, intrapelvic lymph nodes                             | Diagnosis | ICD-10-CM |
| C84.A7 | Cutaneous T-cell lymphoma, unspecified, spleen                                              | Diagnosis | ICD-10-CM |
| C84.A8 | Cutaneous T-cell lymphoma, unspecified, lymph nodes of multiple sites                       | Diagnosis | ICD-10-CM |
| C84.A9 | Cutaneous T-cell lymphoma, unspecified, extranodal and solid organ sites                    | Diagnosis | ICD-10-CM |
| C84.Z  | Other mature T/NK-cell lymphomas                                                            | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                  | Code      |           |
|--------|----------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                              | Category  | Code Type |
| C84.Z0 | Other mature T/NK-cell lymphomas, unspecified site                                           | Diagnosis | ICD-10-CM |
| C84.Z1 | Other mature T/NK-cell lymphomas, lymph nodes of head, face, and neck                        | Diagnosis | ICD-10-CM |
| C84.Z2 | Other mature T/NK-cell lymphomas, intrathoracic lymph nodes                                  | Diagnosis | ICD-10-CM |
| C84.Z3 | Other mature T/NK-cell lymphomas, intra-abdominal lymph nodes                                | Diagnosis | ICD-10-CM |
| C84.Z4 | Other mature T/NK-cell lymphomas, lymph nodes of axilla and upper limb                       | Diagnosis | ICD-10-CM |
| C84.Z5 | Other mature T/NK-cell lymphomas, lymph nodes of inguinal region and lower limb              | Diagnosis | ICD-10-CM |
| C84.Z6 | Other mature T/NK-cell lymphomas, intrapelvic lymph nodes                                    | Diagnosis | ICD-10-CM |
| C84.Z7 | Other mature T/NK-cell lymphomas, spleen                                                     | Diagnosis | ICD-10-CM |
| C84.Z8 | Other mature T/NK-cell lymphomas, lymph nodes of multiple sites                              | Diagnosis | ICD-10-CM |
| C84.Z9 | Other mature T/NK-cell lymphomas, extranodal and solid organ sites                           | Diagnosis | ICD-10-CM |
| C85    | Other specified and unspecified types of non-Hodgkin lymphoma                                | Diagnosis | ICD-10-CM |
| C85.1  | Unspecified B-cell lymphoma                                                                  | Diagnosis | ICD-10-CM |
| C85.10 | Unspecified B-cell lymphoma, unspecified site                                                | Diagnosis | ICD-10-CM |
| C85.11 | Unspecified B-cell lymphoma, lymph nodes of head, face, and neck                             | Diagnosis | ICD-10-CM |
| C85.12 | Unspecified B-cell lymphoma, intrathoracic lymph nodes                                       | Diagnosis | ICD-10-CM |
| C85.13 | Unspecified B-cell lymphoma, intra-abdominal lymph nodes                                     | Diagnosis | ICD-10-CM |
| C85.14 | Unspecified B-cell lymphoma, lymph nodes of axilla and upper limb                            | Diagnosis | ICD-10-CM |
| C85.15 | Unspecified B-cell lymphoma, lymph nodes of inguinal region and lower limb                   | Diagnosis | ICD-10-CM |
| C85.16 | Unspecified B-cell lymphoma, intrapelvic lymph nodes                                         | Diagnosis | ICD-10-CM |
| C85.17 | Unspecified B-cell lymphoma, spleen                                                          | Diagnosis | ICD-10-CM |
| C85.18 | Unspecified B-cell lymphoma, lymph nodes of multiple sites                                   | Diagnosis | ICD-10-CM |
| C85.19 | Unspecified B-cell lymphoma, extranodal and solid organ sites                                | Diagnosis | ICD-10-CM |
| C85.2  | Mediastinal (thymic) large B-cell lymphoma                                                   | Diagnosis | ICD-10-CM |
| C85.20 | Mediastinal (thymic) large B-cell lymphoma, unspecified site                                 | Diagnosis | ICD-10-CM |
| C85.21 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of head, face, and neck              | Diagnosis | ICD-10-CM |
| C85.22 | Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes                        | Diagnosis | ICD-10-CM |
| C85.23 | Mediastinal (thymic) large B-cell lymphoma, intra-abdominal lymph nodes                      | Diagnosis | ICD-10-CM |
| C85.24 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of axilla and upper limb             | Diagnosis | ICD-10-CM |
| C85.25 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-10-CM |
| C85.26 | Mediastinal (thymic) large B-cell lymphoma, intrapelvic lymph nodes                          | Diagnosis | ICD-10-CM |
| C85.27 | Mediastinal (thymic) large B-cell lymphoma, spleen                                           | Diagnosis | ICD-10-CM |
| C85.28 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of multiple sites                    | Diagnosis | ICD-10-CM |
| C85.29 | Mediastinal (thymic) large B-cell lymphoma, extranodal and solid organ sites                 | Diagnosis | ICD-10-CM |
| C85.8  | Other specified types of non-Hodgkin lymphoma                                                | Diagnosis | ICD-10-CM |
| C85.80 | Other specified types of non-Hodgkin lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C85.81 | Other specified types of non-Hodgkin lymphoma, lymph nodes of head, face, and                | Diagnosis | ICD-10-CM |
| C85.82 | Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C85.83 | Other specified types of non-Hodgkin lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C85.84 | Other specified types of non-Hodgkin lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C85.85 | Other specified types of non-Hodgkin lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                               | Code      |           |
|--------|---------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                           | Category  | Code Type |
| C85.86 | Other specified types of non-Hodgkin lymphoma, intrapelvic lymph nodes                                                    | Diagnosis | ICD-10-CM |
| C85.87 | Other specified types of non-Hodgkin lymphoma, spleen                                                                     | Diagnosis | ICD-10-CM |
| C85.88 | Other specified types of non-Hodgkin lymphoma, lymph nodes of multiple sites                                              | Diagnosis | ICD-10-CM |
| C85.89 | Other specified types of non-Hodgkin lymphoma, extranodal and solid organ sites                                           | Diagnosis | ICD-10-CM |
| C85.9  | Non-Hodgkin lymphoma, unspecified                                                                                         | Diagnosis | ICD-10-CM |
| C85.90 | Non-Hodgkin lymphoma, unspecified, unspecified site                                                                       | Diagnosis | ICD-10-CM |
| C85.91 | Non-Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck                                                    | Diagnosis | ICD-10-CM |
| C85.92 | Non-Hodgkin lymphoma, unspecified, intrathoracic lymph nodes                                                              | Diagnosis | ICD-10-CM |
| C85.93 | Non-Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes                                                            | Diagnosis | ICD-10-CM |
| C85.94 | Non-Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb                                                   | Diagnosis | ICD-10-CM |
| C85.95 | Non-Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb                                          | Diagnosis | ICD-10-CM |
| C85.96 | Non-Hodgkin lymphoma, unspecified, intrapelvic lymph nodes                                                                | Diagnosis | ICD-10-CM |
| C85.97 | Non-Hodgkin lymphoma, unspecified, spleen                                                                                 | Diagnosis | ICD-10-CM |
| C85.98 | Non-Hodgkin lymphoma, unspecified, lymph nodes of multiple sites                                                          | Diagnosis | ICD-10-CM |
| C85.99 | Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites                                                       | Diagnosis | ICD-10-CM |
| C86    | Other specified types of T/NK-cell lymphoma                                                                               | Diagnosis | ICD-10-CM |
| C86.0  | Extranodal NK/T-cell lymphoma, nasal type                                                                                 | Diagnosis | ICD-10-CM |
| C86.1  | Hepatosplenic T-cell lymphoma                                                                                             | Diagnosis | ICD-10-CM |
| C86.2  | Enteropathy-type (intestinal) T-cell lymphoma                                                                             | Diagnosis | ICD-10-CM |
| C86.3  | Subcutaneous panniculitis-like T-cell lymphoma                                                                            | Diagnosis | ICD-10-CM |
| C86.4  | Blastic NK-cell lymphoma                                                                                                  | Diagnosis | ICD-10-CM |
| C86.5  | Angioimmunoblastic T-cell lymphoma                                                                                        | Diagnosis | ICD-10-CM |
| C86.6  | Primary cutaneous CD30-positive T-cell proliferations                                                                     | Diagnosis | ICD-10-CM |
| C88    | Malignant immunoproliferative diseases and certain other B-cell lymphomas                                                 | Diagnosis | ICD-10-CM |
| C88.0  | Waldenstrom macroglobulinemia                                                                                             | Diagnosis | ICD-10-CM |
| C88.2  | Heavy chain disease                                                                                                       | Diagnosis | ICD-10-CM |
| C88.3  | Immunoproliferative small intestinal disease                                                                              | Diagnosis | ICD-10-CM |
| C88.4  | Extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue [MALT-lymphoma]                             | Diagnosis | ICD-10-CM |
| C88.8  | Other malignant immunoproliferative diseases                                                                              | Diagnosis | ICD-10-CM |
| C88.9  | Malignant immunoproliferative disease, unspecified                                                                        | Diagnosis | ICD-10-CM |
| C8953  | Chemotherapy administration, intravenous; push technique                                                                  | Procedure | HCPCS     |
| C8954  | Chemotherapy administration, intravenous; infusion technique, up to one hour                                              | Procedure | HCPCS     |
| C8955  | Chemotherapy administration, intravenous; infusion technique, each additional hour (List separately in addition to C8954) | Procedure | HCPCS     |
| C90    | Multiple myeloma and malignant plasma cell neoplasms                                                                      | Diagnosis | ICD-10-CM |
| C90.0  | Multiple myeloma                                                                                                          | Diagnosis | ICD-10-CM |
| C90.00 | Multiple myeloma not having achieved remission                                                                            | Diagnosis | ICD-10-CM |
| C90.01 | Multiple myeloma in remission                                                                                             | Diagnosis | ICD-10-CM |
| C90.02 | Multiple myeloma in relapse                                                                                               | Diagnosis | ICD-10-CM |
| C90.1  | Plasma cell leukemia                                                                                                      | Diagnosis | ICD-10-CM |
| C90.10 | Plasma cell leukemia not having achieved remission                                                                        | Diagnosis | ICD-10-CM |
| C90.11 | Plasma cell leukemia in remission                                                                                         | Diagnosis | ICD-10-CM |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                      | Code      |           |
|--------|----------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                  | Category  | Code Type |
| C90.12 | Plasma cell leukemia in relapse                                                  | Diagnosis | ICD-10-CM |
| C90.2  | Extramedullary plasmacytoma                                                      | Diagnosis | ICD-10-CM |
| C90.20 | Extramedullary plasmacytoma not having achieved remission                        | Diagnosis | ICD-10-CM |
| C90.21 | Extramedullary plasmacytoma in remission                                         | Diagnosis | ICD-10-CM |
| C90.22 | Extramedullary plasmacytoma in relapse                                           | Diagnosis | ICD-10-CM |
| C90.3  | Solitary plasmacytoma                                                            | Diagnosis | ICD-10-CM |
| C90.30 | Solitary plasmacytoma not having achieved remission                              | Diagnosis | ICD-10-CM |
| C90.31 | Solitary plasmacytoma in remission                                               | Diagnosis | ICD-10-CM |
| C90.32 | Solitary plasmacytoma in relapse                                                 | Diagnosis | ICD-10-CM |
| C9004  | Injection, gemtuzumab ozogamicin, per 5 mg                                       | Procedure | HCPCS     |
| C9012  | Injection, arsenic trioxide, per 1 mg/kg                                         | Procedure | HCPCS     |
| C9017  | Lomustine, 10 mg                                                                 | Procedure | HCPCS     |
| C9021  | Injection, obinutuzumab, 10 mg                                                   | Procedure | HCPCS     |
| C9024  | Injection, liposomal, 1 mg daunorubicin and 2.27 mg cytarabine                   | Procedure | HCPCS     |
| C9042  | Injection, bendamustine HCl (Belrapzo), 1 mg                                     | Procedure | HCPCS     |
| C9044  | Injection, cemiplimab-rwlc, 1 mg                                                 | Procedure | HCPCS     |
| C9045  | Injection, moxetumomab pasudotox-tdfk, 0.01 mg                                   | Procedure | HCPCS     |
| C9049  | Injection, tagraxofusp-erzs, 10 mcg                                              | Procedure | HCPCS     |
| C9050  | Injection, emapalumab-lzsg, 1 mg                                                 | Procedure | HCPCS     |
| C91    | Lymphoid leukemia                                                                | Diagnosis | ICD-10-CM |
| C91.0  | Acute lymphoblastic leukemia [ALL]                                               | Diagnosis | ICD-10-CM |
| C91.00 | Acute lymphoblastic leukemia not having achieved remission                       | Diagnosis | ICD-10-CM |
| C91.01 | Acute lymphoblastic leukemia, in remission                                       | Diagnosis | ICD-10-CM |
| C91.02 | Acute lymphoblastic leukemia, in relapse                                         | Diagnosis | ICD-10-CM |
| C91.1  | Chronic lymphocytic leukemia of B-cell type                                      | Diagnosis | ICD-10-CM |
| C91.10 | Chronic lymphocytic leukemia of B-cell type not having achieved remission        | Diagnosis | ICD-10-CM |
| C91.11 | Chronic lymphocytic leukemia of B-cell type in remission                         | Diagnosis | ICD-10-CM |
| C91.12 | Chronic lymphocytic leukemia of B-cell type in relapse                           | Diagnosis | ICD-10-CM |
| C91.3  | Prolymphocytic leukemia of B-cell type                                           | Diagnosis | ICD-10-CM |
| C91.30 | Prolymphocytic leukemia of B-cell type not having achieved remission             | Diagnosis | ICD-10-CM |
| C91.31 | Prolymphocytic leukemia of B-cell type, in remission                             | Diagnosis | ICD-10-CM |
| C91.32 | Prolymphocytic leukemia of B-cell type, in relapse                               | Diagnosis | ICD-10-CM |
| C91.4  | Hairy cell leukemia                                                              | Diagnosis | ICD-10-CM |
| C91.40 | Hairy cell leukemia not having achieved remission                                | Diagnosis | ICD-10-CM |
| C91.41 | Hairy cell leukemia, in remission                                                | Diagnosis | ICD-10-CM |
| C91.42 | Hairy cell leukemia, in relapse                                                  | Diagnosis | ICD-10-CM |
| C91.5  | Adult T-cell lymphoma/leukemia (HTLV-1-associated)                               | Diagnosis | ICD-10-CM |
| C91.50 | Adult T-cell lymphoma/leukemia (HTLV-1-associated) not having achieved remission | Diagnosis | ICD-10-CM |
| C91.51 | Adult T-cell lymphoma/leukemia (HTLV-1-associated), in remission                 | Diagnosis | ICD-10-CM |
| C91.52 | Adult T-cell lymphoma/leukemia (HTLV-1-associated), in relapse                   | Diagnosis | ICD-10-CM |
| C91.6  | Prolymphocytic leukemia of T-cell type                                           | Diagnosis | ICD-10-CM |
| C91.60 | Prolymphocytic leukemia of T-cell type not having achieved remission             | Diagnosis | ICD-10-CM |
| C91.61 | Prolymphocytic leukemia of T-cell type, in remission                             | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                        | Code      |           |
|--------|------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                    | Category  | Code Type |
| C91.62 | Prolymphocytic leukemia of T-cell type, in relapse                                 | Diagnosis | ICD-10-CM |
| C91.9  | Lymphoid leukemia, unspecified                                                     | Diagnosis | ICD-10-CM |
| C91.90 | Lymphoid leukemia, unspecified not having achieved remission                       | Diagnosis | ICD-10-CM |
| C91.91 | Lymphoid leukemia, unspecified, in remission                                       | Diagnosis | ICD-10-CM |
| C91.92 | Lymphoid leukemia, unspecified, in relapse                                         | Diagnosis | ICD-10-CM |
| C91.A  | Mature B-cell leukemia Burkitt-type                                                | Diagnosis | ICD-10-CM |
| C91.A0 | Mature B-cell leukemia Burkitt-type not having achieved remission                  | Diagnosis | ICD-10-CM |
| C91.A1 | Mature B-cell leukemia Burkitt-type, in remission                                  | Diagnosis | ICD-10-CM |
| C91.A2 | Mature B-cell leukemia Burkitt-type, in relapse                                    | Diagnosis | ICD-10-CM |
| C91.Z  | Other lymphoid leukemia                                                            | Diagnosis | ICD-10-CM |
| C91.Z0 | Other lymphoid leukemia not having achieved remission                              | Diagnosis | ICD-10-CM |
| C91.Z1 | Other lymphoid leukemia, in remission                                              | Diagnosis | ICD-10-CM |
| C91.Z2 | Other lymphoid leukemia, in relapse                                                | Diagnosis | ICD-10-CM |
| C9110  | Injection, alemtuzumab, per 10 mg/ ml                                              | Procedure | HCPCS     |
| C9127  | Injection, paclitaxel protein-bound particles, per 1 mg                            | Procedure | HCPCS     |
| C9129  | Injection, clofarabine, per 1 mg                                                   | Procedure | HCPCS     |
| C92    | Myeloid leukemia                                                                   | Diagnosis | ICD-10-CM |
| C92.0  | Acute myeloblastic leukemia                                                        | Diagnosis | ICD-10-CM |
| C92.00 | Acute myeloblastic leukemia, not having achieved remission                         | Diagnosis | ICD-10-CM |
| C92.01 | Acute myeloblastic leukemia, in remission                                          | Diagnosis | ICD-10-CM |
| C92.02 | Acute myeloblastic leukemia, in relapse                                            | Diagnosis | ICD-10-CM |
| C92.1  | Chronic myeloid leukemia, BCR/ABL-positive                                         | Diagnosis | ICD-10-CM |
| C92.10 | Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission          | Diagnosis | ICD-10-CM |
| C92.11 | Chronic myeloid leukemia, BCR/ABL-positive, in remission                           | Diagnosis | ICD-10-CM |
| C92.12 | Chronic myeloid leukemia, BCR/ABL-positive, in relapse                             | Diagnosis | ICD-10-CM |
| C92.2  | Atypical chronic myeloid leukemia, BCR/ABL-negative                                | Diagnosis | ICD-10-CM |
| C92.20 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission | Diagnosis | ICD-10-CM |
| C92.21 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in remission                  | Diagnosis | ICD-10-CM |
| C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse                    | Diagnosis | ICD-10-CM |
| C92.3  | Myeloid sarcoma                                                                    | Diagnosis | ICD-10-CM |
| C92.30 | Myeloid sarcoma, not having achieved remission                                     | Diagnosis | ICD-10-CM |
| C92.31 | Myeloid sarcoma, in remission                                                      | Diagnosis | ICD-10-CM |
| C92.32 | Myeloid sarcoma, in relapse                                                        | Diagnosis | ICD-10-CM |
| C92.4  | Acute promyelocytic leukemia                                                       | Diagnosis | ICD-10-CM |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission                        | Diagnosis | ICD-10-CM |
| C92.41 | Acute promyelocytic leukemia, in remission                                         | Diagnosis | ICD-10-CM |
| C92.42 | Acute promyelocytic leukemia, in relapse                                           | Diagnosis | ICD-10-CM |
| C92.5  | Acute myelomonocytic leukemia                                                      | Diagnosis | ICD-10-CM |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission                       | Diagnosis | ICD-10-CM |
| C92.51 | Acute myelomonocytic leukemia, in remission                                        | Diagnosis | ICD-10-CM |
| C92.52 | Acute myelomonocytic leukemia, in relapse                                          | Diagnosis | ICD-10-CM |
| C92.6  | Acute myeloid leukemia with 11q23-abnormality                                      | Diagnosis | ICD-10-CM |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission        | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                                                                      | Code      |           |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                                                  | Category  | Code Type |
| C92.61 | Acute myeloid leukemia with 11q23-abnormality in remission                                                                                                       | Diagnosis | ICD-10-CM |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse                                                                                                         | Diagnosis | ICD-10-CM |
| C92.9  | Myeloid leukemia, unspecified                                                                                                                                    | Diagnosis | ICD-10-CM |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission                                                                                                     | Diagnosis | ICD-10-CM |
| C92.91 | Myeloid leukemia, unspecified in remission                                                                                                                       | Diagnosis | ICD-10-CM |
| C92.92 | Myeloid leukemia, unspecified in relapse                                                                                                                         | Diagnosis | ICD-10-CM |
| C92.A  | Acute myeloid leukemia with multilineage dysplasia                                                                                                               | Diagnosis | ICD-10-CM |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission                                                                                | Diagnosis | ICD-10-CM |
| C92.A1 | Acute myeloid leukemia with multilineage dysplasia, in remission                                                                                                 | Diagnosis | ICD-10-CM |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse                                                                                                   | Diagnosis | ICD-10-CM |
| C92.Z  | Other myeloid leukemia                                                                                                                                           | Diagnosis | ICD-10-CM |
| C92.Z0 | Other myeloid leukemia not having achieved remission                                                                                                             | Diagnosis | ICD-10-CM |
| C92.Z1 | Other myeloid leukemia, in remission                                                                                                                             | Diagnosis | ICD-10-CM |
| C92.Z2 | Other myeloid leukemia, in relapse                                                                                                                               | Diagnosis | ICD-10-CM |
| C9205  | Injection, oxaliplatin, per 5 mg                                                                                                                                 | Procedure | HCPCS     |
| C9207  | Injection, bortezomib, per 3.5 mg                                                                                                                                | Procedure | HCPCS     |
| C9213  | Injection, pemetrexed, per 10 mg                                                                                                                                 | Procedure | HCPCS     |
| C9214  | Injection, bevacizumab, per 10 mg                                                                                                                                | Procedure | HCPCS     |
| C9215  | Injection, cetuximab, per 10 mg                                                                                                                                  | Procedure | HCPCS     |
| C9218  | Injection, azacitidine, per 1 mg                                                                                                                                 | Procedure | HCPCS     |
| C9231  | Injection, decitabine, per 1 mg                                                                                                                                  | Procedure | HCPCS     |
| C9235  | Injection, panitumumab, 10 mg                                                                                                                                    | Procedure | HCPCS     |
| C9239  | Injection, temsirolimus, 1 mg                                                                                                                                    | Procedure | HCPCS     |
| C9240  | Injection, ixabepilone, 1 mg                                                                                                                                     | Procedure | HCPCS     |
| C9243  | Injection, bendamustine hcl, 1 mg                                                                                                                                | Procedure | HCPCS     |
| C9253  | Injection, temozolomide, 1mg                                                                                                                                     | Procedure | HCPCS     |
| C9259  | Injection, pralatrexate, 1 mg                                                                                                                                    | Procedure | HCPCS     |
| C9260  | Injection, ofatumumab, 10 mg                                                                                                                                     | Procedure | HCPCS     |
| C9262  | Fludarabine phosphate, oral, 1 mg                                                                                                                                | Procedure | HCPCS     |
| C9265  | Injection, romidepsin, 1 mg                                                                                                                                      | Procedure | HCPCS     |
| C9273  | Sipuleucel-T, minimum of 50 million autologous CD54+ cells activated with PAP-GM-CSF, including leukapheresis and all other preparatory procedures, per infusion | Procedure | HCPCS     |
| C9276  | Injection, cabazitaxel, 1 mg                                                                                                                                     | Procedure | HCPCS     |
| C9280  | Injection, eribulin mesylate, 1 mg                                                                                                                               | Procedure | HCPCS     |
| C9284  | Injection, ipilimumab, 1 mg                                                                                                                                      | Procedure | HCPCS     |
| C9287  | Injection, brentuximab vedotin, 1 mg                                                                                                                             | Procedure | HCPCS     |
| C9289  | Injection, asparaginase Erwinia chrysanthemi, 1,000 IU                                                                                                           | Procedure | HCPCS     |
| C9292  | Injection, pertuzumab, 10 mg                                                                                                                                     | Procedure | HCPCS     |
| C9295  | Injection, carfilzomib, 1 mg                                                                                                                                     | Procedure | HCPCS     |
| C9297  | Injection, omacetaxine mepesuccinate, 0.01 mg                                                                                                                    | Procedure | HCPCS     |
| C93    | Monocytic leukemia                                                                                                                                               | Diagnosis | ICD-10-CM |
| C93.0  | Acute monoblastic/monocytic leukemia                                                                                                                             | Diagnosis | ICD-10-CM |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission                                                                                              | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                        | Code      |           |
|--------|--------------------------------------------------------------------|-----------|-----------|
|        |                                                                    | Category  | Code Type |
| C93.01 | Acute monoblastic/monocytic leukemia, in remission                 | Diagnosis | ICD-10-CM |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse                   | Diagnosis | ICD-10-CM |
| C93.1  | Chronic myelomonocytic leukemia                                    | Diagnosis | ICD-10-CM |
| C93.10 | Chronic myelomonocytic leukemia not having achieved remission      | Diagnosis | ICD-10-CM |
| C93.11 | Chronic myelomonocytic leukemia, in remission                      | Diagnosis | ICD-10-CM |
| C93.12 | Chronic myelomonocytic leukemia, in relapse                        | Diagnosis | ICD-10-CM |
| C93.3  | Juvenile myelomonocytic leukemia                                   | Diagnosis | ICD-10-CM |
| C93.30 | Juvenile myelomonocytic leukemia, not having achieved remission    | Diagnosis | ICD-10-CM |
| C93.31 | Juvenile myelomonocytic leukemia, in remission                     | Diagnosis | ICD-10-CM |
| C93.32 | Juvenile myelomonocytic leukemia, in relapse                       | Diagnosis | ICD-10-CM |
| C93.9  | Monocytic leukemia, unspecified                                    | Diagnosis | ICD-10-CM |
| C93.90 | Monocytic leukemia, unspecified, not having achieved remission     | Diagnosis | ICD-10-CM |
| C93.91 | Monocytic leukemia, unspecified in remission                       | Diagnosis | ICD-10-CM |
| C93.92 | Monocytic leukemia, unspecified in relapse                         | Diagnosis | ICD-10-CM |
| C93.Z  | Other monocytic leukemia                                           | Diagnosis | ICD-10-CM |
| C93.Z0 | Other monocytic leukemia, not having achieved remission            | Diagnosis | ICD-10-CM |
| C93.Z1 | Other monocytic leukemia, in remission                             | Diagnosis | ICD-10-CM |
| C93.Z2 | Other monocytic leukemia, in relapse                               | Diagnosis | ICD-10-CM |
| C94    | Other leukemias of specified cell type                             | Diagnosis | ICD-10-CM |
| C94.0  | Acute erythroid leukemia                                           | Diagnosis | ICD-10-CM |
| C94.00 | Acute erythroid leukemia, not having achieved remission            | Diagnosis | ICD-10-CM |
| C94.01 | Acute erythroid leukemia, in remission                             | Diagnosis | ICD-10-CM |
| C94.02 | Acute erythroid leukemia, in relapse                               | Diagnosis | ICD-10-CM |
| C94.2  | Acute megakaryoblastic leukemia                                    | Diagnosis | ICD-10-CM |
| C94.20 | Acute megakaryoblastic leukemia not having achieved remission      | Diagnosis | ICD-10-CM |
| C94.21 | Acute megakaryoblastic leukemia, in remission                      | Diagnosis | ICD-10-CM |
| C94.22 | Acute megakaryoblastic leukemia, in relapse                        | Diagnosis | ICD-10-CM |
| C94.3  | Mast cell leukemia                                                 | Diagnosis | ICD-10-CM |
| C94.30 | Mast cell leukemia not having achieved remission                   | Diagnosis | ICD-10-CM |
| C94.31 | Mast cell leukemia, in remission                                   | Diagnosis | ICD-10-CM |
| C94.32 | Mast cell leukemia, in relapse                                     | Diagnosis | ICD-10-CM |
| C94.4  | Acute panmyelosis with myelofibrosis                               | Diagnosis | ICD-10-CM |
| C94.40 | Acute panmyelosis with myelofibrosis not having achieved remission | Diagnosis | ICD-10-CM |
| C94.41 | Acute panmyelosis with myelofibrosis, in remission                 | Diagnosis | ICD-10-CM |
| C94.42 | Acute panmyelosis with myelofibrosis, in relapse                   | Diagnosis | ICD-10-CM |
| C94.6  | Myelodysplastic disease, not classified                            | Diagnosis | ICD-10-CM |
| C94.8  | Other specified leukemias                                          | Diagnosis | ICD-10-CM |
| C94.80 | Other specified leukemias not having achieved remission            | Diagnosis | ICD-10-CM |
| C94.81 | Other specified leukemias, in remission                            | Diagnosis | ICD-10-CM |
| C94.82 | Other specified leukemias, in relapse                              | Diagnosis | ICD-10-CM |
| C9414  | Etoposide; oral, 50 mg, brand name                                 | Procedure | HCPCS     |
| C9415  | Doxorubicin HCl, 10 mg, brand name                                 | Procedure | HCPCS     |
| C9417  | Bleomycin sulfate, 15 units, brand name                            | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                             | Code      |           |
|--------|-----------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                         | Category  | Code Type |
| C9418  | Cisplatin, powder or solution, per 10 mg, brand name                                    | Procedure | HCPCS     |
| C9419  | Injection, cladribine, per 1 mg, brand name                                             | Procedure | HCPCS     |
| C9420  | Cyclophosphamide, 100 mg, brand name                                                    | Procedure | HCPCS     |
| C9421  | Cyclophosphamide, lyophilized, 100 mg, brand name                                       | Procedure | HCPCS     |
| C9422  | Cytarabine, 100 mg, brand name                                                          | Procedure | HCPCS     |
| C9423  | Dacarbazine, 100 mg, brand name                                                         | Procedure | HCPCS     |
| C9424  | Daunorubicin, 10 mg                                                                     | Procedure | HCPCS     |
| C9425  | Etoposide, 10 mg, brand name                                                            | Procedure | HCPCS     |
| C9426  | Floxuridine, 500 mg, brand name                                                         | Procedure | HCPCS     |
| C9427  | Ifosfamide, 1 gm, brand name                                                            | Procedure | HCPCS     |
| C9429  | Idarubicin HCl, 5 mg, brand name                                                        | Procedure | HCPCS     |
| C9431  | Paclitaxel, 30 mg, brand name                                                           | Procedure | HCPCS     |
| C9432  | Mitomycin, 5 mg, brand name                                                             | Procedure | HCPCS     |
| C9433  | Thiotepa, 15 mg, brand name                                                             | Procedure | HCPCS     |
| C9437  | Carmustine, brand name, 100 mg                                                          | Procedure | HCPCS     |
| C9440  | Vinorelbine tartrate, brand name, per 10 mg                                             | Procedure | HCPCS     |
| C9474  | Injection, irinotecan liposome, 1 mg                                                    | Procedure | HCPCS     |
| C95    | Leukemia of unspecified cell type                                                       | Diagnosis | ICD-10-CM |
| C95.0  | Acute leukemia of unspecified cell type                                                 | Diagnosis | ICD-10-CM |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission                   | Diagnosis | ICD-10-CM |
| C95.01 | Acute leukemia of unspecified cell type, in remission                                   | Diagnosis | ICD-10-CM |
| C95.02 | Acute leukemia of unspecified cell type, in relapse                                     | Diagnosis | ICD-10-CM |
| C95.1  | Chronic leukemia of unspecified cell type                                               | Diagnosis | ICD-10-CM |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission                 | Diagnosis | ICD-10-CM |
| C95.11 | Chronic leukemia of unspecified cell type, in remission                                 | Diagnosis | ICD-10-CM |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse                                   | Diagnosis | ICD-10-CM |
| C95.9  | Leukemia, unspecified                                                                   | Diagnosis | ICD-10-CM |
| C95.90 | Leukemia, unspecified not having achieved remission                                     | Diagnosis | ICD-10-CM |
| C95.91 | Leukemia, unspecified, in remission                                                     | Diagnosis | ICD-10-CM |
| C95.92 | Leukemia, unspecified, in relapse                                                       | Diagnosis | ICD-10-CM |
| C96    | Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue | Diagnosis | ICD-10-CM |
| C96.0  | Multifocal and multisystemic (disseminated) Langerhans-cell histiocytosis               | Diagnosis | ICD-10-CM |
| C96.2  | Malignant mast cell neoplasm                                                            | Diagnosis | ICD-10-CM |
| C96.20 | Malignant mast cell neoplasm, unspecified                                               | Diagnosis | ICD-10-CM |
| C96.21 | Aggressive systemic mastocytosis                                                        | Diagnosis | ICD-10-CM |
| C96.22 | Mast cell sarcoma                                                                       | Diagnosis | ICD-10-CM |
| C96.29 | Other malignant mast cell neoplasm                                                      | Diagnosis | ICD-10-CM |
| C96.4  | Sarcoma of dendritic cells (accessory cells)                                            | Diagnosis | ICD-10-CM |
| C96.5  | Multifocal and unisystemic Langerhans-cell histiocytosis                                | Diagnosis | ICD-10-CM |
| C96.6  | Unifocal Langerhans-cell histiocytosis                                                  | Diagnosis | ICD-10-CM |
| C96.9  | Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified           | Diagnosis | ICD-10-CM |
| C96.A  | Histiocytic sarcoma                                                                     | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                                                                                                                                                                                                                                                                                                          | Code      |           |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                                                                                                                                                                                                                                                                                      | Category  | Code Type |
| C96.Z  | Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue                                                                                                                                                                                                                                                                                                                    | Diagnosis | ICD-10-CM |
| D30.1  | Benign neoplasm of renal pelvis                                                                                                                                                                                                                                                                                                                                                                      | Diagnosis | ICD-10-CM |
| D30.10 | Benign neoplasm of unspecified renal pelvis                                                                                                                                                                                                                                                                                                                                                          | Diagnosis | ICD-10-CM |
| D30.11 | Benign neoplasm of right renal pelvis                                                                                                                                                                                                                                                                                                                                                                | Diagnosis | ICD-10-CM |
| D30.12 | Benign neoplasm of left renal pelvis                                                                                                                                                                                                                                                                                                                                                                 | Diagnosis | ICD-10-CM |
| D41.10 | Neoplasm of uncertain behavior of unspecified renal pelvis                                                                                                                                                                                                                                                                                                                                           | Diagnosis | ICD-10-CM |
| D41.11 | Neoplasm of uncertain behavior of right renal pelvis                                                                                                                                                                                                                                                                                                                                                 | Diagnosis | ICD-10-CM |
| D41.12 | Neoplasm of uncertain behavior of left renal pelvis                                                                                                                                                                                                                                                                                                                                                  | Diagnosis | ICD-10-CM |
| D45    | Polycythemia vera                                                                                                                                                                                                                                                                                                                                                                                    | Diagnosis | ICD-10-CM |
| D7440  | excision of malignant tumor - lesion diameter up to 1.25 cm                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| D7441  | excision of malignant tumor - lesion diameter greater than 1.25 cm                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| G0068  | Professional services for the administration of anti-infective, pain management, chelation, pulmonary hypertension, inotropic, or other intravenous infusion drug or biological (excluding chemotherapy or other highly complex drug or biological) for each infusion drug administration calendar day in the individual's home, each 15 min                                                         | Procedure | HCPCS     |
| G0070  | Professional services for the administration of intravenous chemotherapy or other intravenous highly complex drug or biological infusion for each infusion drug administration calendar day in the individual's home, each 15 min                                                                                                                                                                    | Procedure | HCPCS     |
| G0088  | Professional services, initial visit, for the administration of anti-infective, pain management, chelation, pulmonary hypertension, inotropic, or other intravenous infusion drug or biological (excluding chemotherapy or other highly complex drug or biological) for each infusion drug administration calendar day in the individual's home, each 15 min                                         | Procedure | HCPCS     |
| G0090  | Professional services, initial visit, for the administration of intravenous chemotherapy or other highly complex infusion drug or biological for each infusion drug administration calendar day in the individual's home, each 15 min                                                                                                                                                                | Procedure | HCPCS     |
| G0292  | Administration(s) of experimental drug(s) only in a medicare qualifying clinical trial (includes administration for chemotherapy and other types of therapy via infusion and/or other than infusion), per day                                                                                                                                                                                        | Procedure | HCPCS     |
| G0355  | Chemotherapy administration, subcutaneous or intramuscular nonhormonal antineoplastic                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G0359  | Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |
| G0361  | Initiation of prolonged chemotherapy infusion (more than eight hours), requiring use of a portable or implantable pump                                                                                                                                                                                                                                                                               | Procedure | HCPCS     |
| G0498  | Chemotherapy administration, intravenous infusion technique; initiation of infusion in the office/clinic setting using office/clinic pump/supplies, with continuation of the infusion in the community setting (e.g., home, domiciliary, rest home or assisted living) using a portable pump provided by the office/clinic, includes follow up office/clinic visit at the conclusion of the infusion | Procedure | HCPCS     |
| G2129  | Procedure related BP's not taken during an outpatient visit. Examples include same day surgery, ambulatory service center, GI, lab, dialysis, infusion center, chemotherapy                                                                                                                                                                                                                          | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                            | Code      |           |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Category  | Code Type |
| G2206 | Patient received adjuvant treatment course including both chemotherapy and HER2-targeted therapy                                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| G2207 | Reason for not administering adjuvant treatment course including both chemotherapy and HER2-targeted therapy (e.g., poor performance status (ECOG 3-4; Karnofsky <=50), cardiac contraindications, insufficient renal function, insufficient hepatic function, other active or secondary cancer diagnoses, other medical contraindications, patients who died during initial treatment course or transferred during or after initial treatment course) | Procedure | HCPCS     |
| G2208 | Patient did not receive adjuvant treatment course including both chemotherapy and HER2-targeted therapy                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G3001 | Administration and supply of tositumomab, 450 mg                                                                                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| G8371 | Chemotherapy documented as not received or prescribed for Stage III colon cancer patients                                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| G8372 | Chemotherapy documented as received or prescribed for Stage III colon cancer patients                                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| G8373 | Chemotherapy plan documented prior to chemotherapy administration                                                                                                                                                                                                                                                                                                                                                                                      | Procedure | HCPCS     |
| G8374 | Chemotherapy plan not documented prior to chemotherapy administration                                                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| G8375 | Chronic lymphocytic leukemia (CLL) patient with no documentation of baseline flow cytometry performed                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| G8376 | Clinician documentation that breast cancer patient was not eligible for tamoxifen or aromatase inhibitor therapy measure                                                                                                                                                                                                                                                                                                                               | Procedure | HCPCS     |
| G8377 | Clinician documentation that colon cancer patient is not eligible for chemotherapy measure                                                                                                                                                                                                                                                                                                                                                             | Procedure | HCPCS     |
| G8380 | For patients with ER or PR positive, Stage IC-III breast cancer, clinician did not document that the patient received or was prescribed tamoxifen or aromatase inhibitor                                                                                                                                                                                                                                                                               | Procedure | HCPCS     |
| G8381 | For patients with ER or PR positive, Stage IC-III breast cancer, clinician documented or prescribed that the patient is receiving tamoxifen or aromatase inhibitor                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| G8384 | Baseline cytogenetic testing not performed in patients with myelodysplastic syndrome (MDS) or acute leukemias                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| G8464 | Clinician documented that prostate cancer patient is not an eligible candidate for adjuvant hormonal therapy; low or intermediate risk of recurrence or risk of recurrence not determined                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| G8518 | Clinical stage prior to surgery for lung cancer and esophageal cancer resection was recorded                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS     |
| G8519 | Clinician documented that patient was not eligible for clinical stage prior to surgery for lung cancer and esophageal cancer resection measure                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| G8520 | Clinician stage prior to surgery for lung cancer and esophageal cancer resection was not recorded, reason not specified                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G8875 | Clinician diagnosed breast cancer preoperatively by a minimally invasive biopsy method                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| G8879 | Clinically node negative (T1N0M0 or T2N0M0) invasive breast cancer                                                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| G8881 | Stage of breast cancer is greater than T1N0M0 or T2N0M0                                                                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Code      |           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Category  | Code Type |
| G8927 | Adjuvant chemotherapy referred, prescribed or previously received for AJCC stage III, colon cancer                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| G8928 | Adjuvant chemotherapy not prescribed or previously received, for documented reasons (e.g., medical co-morbidities, diagnosis date more than 5 years prior to the current visit date, patient's diagnosis date is within 120 days of the end of the 12 month reporting period, patient's cancer has metastasized, medical contraindication/allergy, poor performance status, other medical reasons, patient refusal, other patient reasons, patient is currently enrolled in a clinical trial that precludes prescription of chemotherapy, other system reasons) | Procedure | HCPCS     |
| G8929 | Adjuvant chemotherapy not prescribed or previously received, reason not given                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| G8975 | Documentation of medical reason(s) for patient having a hemoglobin level < 10 g/dl (e.g., patients who have nonrenal etiologies of anemia [e.g., sickle cell anemia or other hemoglobinopathies, hypersplenism, primary bone marrow disease, anemia related to chemotherapy for diagnosis of malignancy, postoperative bleeding, active bloodstream or peritoneal infection], other medical reasons)                                                                                                                                                            | Procedure | HCPCS     |
| G9021 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                               | Procedure | HCPCS     |
| G9022 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| G9023 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| G9024 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G9025 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| G9026 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| G9027 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G9028 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| G9029 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                             | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                         | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                     | Category  | Code Type |
| G9030 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                                                                                                                   | Procedure | HCPCS     |
| G9031 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 3: quite a bit (for use in a Medicare approved demonstration project)                                                                                                                | Procedure | HCPCS     |
| G9032 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 4: very much (for use in a Medicare-approved demonstration project)                                                                                                                  | Procedure | HCPCS     |
| G9050 | Oncology; primary focus of visit; work-up, evaluation, or staging at the time of cancer diagnosis or recurrence (for use in a Medicare-approved demonstration project)                                                                                                                                                              | Procedure | HCPCS     |
| G9051 | Oncology; primary focus of visit; treatment decision-making after disease is staged or restaged, discussion of treatment options, supervising/coordinating active cancer-directed therapy or managing consequences of cancer-directed therapy (for use in a Medicare-approved demonstration project)                                | Procedure | HCPCS     |
| G9052 | Oncology; primary focus of visit; surveillance for disease recurrence for patient who has completed definitive cancer-directed therapy and currently lacks evidence of recurrent disease; cancer-directed therapy might be considered in the future (for use in a Medicare-approved demonstration project)                          | Procedure | HCPCS     |
| G9053 | Oncology; primary focus of visit; expectant management of patient with evidence of cancer for whom no cancer-directed therapy is being administered or arranged at present; cancer-directed therapy might be considered in the future (for use in a Medicare-approved demonstration project)                                        | Procedure | HCPCS     |
| G9054 | Oncology; primary focus of visit; supervising, coordinating or managing care of patient with terminal cancer or for whom other medical illness prevents further cancer treatment; includes symptom management, end-of-life care planning, management of palliative therapies (for use in a Medicare-approved demonstration project) | Procedure | HCPCS     |
| G9063 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage I (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                 | Procedure | HCPCS     |
| G9064 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage II (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                | Procedure | HCPCS     |
| G9065 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage III a (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                             | Procedure | HCPCS     |
| G9066 | Oncology; disease status; limited to nonsmall cell lung cancer; Stage III B-IV at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                                   | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                 | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                             | Category  | Code Type |
| G9067 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                                        | Procedure | HCPCS     |
| G9069 | Oncology; disease status; small cell lung cancer, limited to small cell and combined small cell/nonsmall cell; extensive Stage at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                           | Procedure | HCPCS     |
| G9070 | Oncology; disease status; small cell lung cancer, limited to small cell and combined small cell/nonsmall; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                              | Procedure | HCPCS     |
| G9071 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage I or Stage IIA-IIB; or T3, N1, M0; and ER and/or PR positive; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure | HCPCS     |
| G9072 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage I, or Stage IIA-IIB; or T3, N1, M0; and ER and PR negative; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)   | Procedure | HCPCS     |
| G9073 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage IIIA-IIIIB; and not T3, N1, M0; and ER and/or PR positive; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)    | Procedure | HCPCS     |
| G9074 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage IIIA-IIIIB; and not T3, N1, M0; and ER and PR negative; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)       | Procedure | HCPCS     |
| G9075 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                         | Procedure | HCPCS     |
| G9076 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; extent of disease unknown, under evaluation, presurgical or not listed (for use in a Medicare-approved demonstration project)                                                                 | Procedure | HCPCS     |
| G9077 | Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T1-T2c and Gleason 2-7 and PSA < or equal to 20 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                       | Procedure | HCPCS     |
| G9078 | Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T2 or T3a Gleason 8-10 or PSA > 20 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                    | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                            | Code      |           |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                        | Category  | Code Type |
| G9079 | Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T3b-T4, any N; any T, N1 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                         | Procedure | HCPCS     |
| G9080 | Oncology; disease status; prostate cancer, limited to adenocarcinoma; after initial treatment with rising PSA or failure of PSA decline (for use in a Medicare-approved demonstration project)                                                                                                                                         | Procedure | HCPCS     |
| G9081 | Oncology; disease status; prostate cancer, limited to adenocarcinoma, non-castrate, incompletely castrate; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)                                                                                                                               | Procedure | HCPCS     |
| G9082 | Oncology; disease status; prostate cancer, limited to adenocarcinoma; castrate; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)                                                                                                                                                          | Procedure | HCPCS     |
| G9083 | Oncology; disease status; prostate cancer, limited to adenocarcinoma; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                             | Procedure | HCPCS     |
| G9084 | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-3, N0, M0 with no evidence of disease progression, recurrence or metastases (for use in a Medicare-approved demonstration project)                                          | Procedure | HCPCS     |
| G9085 | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T4, N0, M0 with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                           | Procedure | HCPCS     |
| G9086 | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-4, N1-2, M0 with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                       | Procedure | HCPCS     |
| G9087 | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive with current clinical, radiologic, or biochemical evidence of disease (for use in a Medicare-approved demonstration project)                               | Procedure | HCPCS     |
| G9088 | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive without current clinical, radiologic, or biochemical evidence of disease (for use in a Medicare-approved demonstration project)                            | Procedure | HCPCS     |
| G9089 | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress or not listed (for use in a Medicare-approved demonstration project)                                                                                                       | Procedure | HCPCS     |
| G9090 | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-2, N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                            | Category  | Code Type |
| G9091 | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T3, N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                       | Procedure | HCPCS     |
| G9092 | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-3, N1-2, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence or metastases (for use in a Medicare-approved demonstration project)                    | Procedure | HCPCS     |
| G9093 | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T4, any N, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                    | Procedure | HCPCS     |
| G9094 | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                        | Procedure | HCPCS     |
| G9095 | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress or not listed (for use in a Medicare-approved demonstration project)                                                                                                                          | Procedure | HCPCS     |
| G9096 | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease initially established as T1-T3, N0-N1 or NX (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure | HCPCS     |
| G9097 | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease initially established as T4, any N, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)      | Procedure | HCPCS     |
| G9098 | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                          | Procedure | HCPCS     |
| G9099 | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                           | Procedure | HCPCS     |
| G9100 | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; post R0 resection (with or without neoadjuvant therapy) with no evidence of disease recurrence, progression, or metastases (for use in a Medicare-approved demonstration project)                                                                            | Procedure | HCPCS     |
| G9101 | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; post R1 or R2 resection (with or without neoadjuvant therapy) with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)                                                                                  | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                         | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                     | Category  | Code Type |
| G9102 | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; clinical or pathologic M0, unresectable with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                 | Procedure | HCPCS     |
| G9103 | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; clinical or pathologic M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                                          | Procedure | HCPCS     |
| G9104 | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                                                  | Procedure | HCPCS     |
| G9105 | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma as predominant cell type; post R0 resection without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                        | Procedure | HCPCS     |
| G9106 | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; post R1 or R2 resection with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                                                       | Procedure | HCPCS     |
| G9107 | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; unresectable at diagnosis, M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                                                            | Procedure | HCPCS     |
| G9108 | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                                                                        | Procedure | HCPCS     |
| G9109 | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease initially established as T1-T2 and N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)     | Procedure | HCPCS     |
| G9110 | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease initially established as T3-4 and/or N1-3, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure | HCPCS     |
| G9111 | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                            | Procedure | HCPCS     |
| G9112 | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                             | Procedure | HCPCS     |
| G9113 | Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic Stage IA-B (Grade 1) without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                                   | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                                 | Code      |           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                             | Category  | Code Type |
| G9114 | Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic Stage IA-B (Grade 2-3); or Stage IC (all grades); or Stage II; without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure | HCPCS     |
| G9115 | Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic Stage III-IV; without evidence of progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                          | Procedure | HCPCS     |
| G9116 | Oncology; disease status; ovarian cancer, limited to epithelial cancer; evidence of disease progression, or recurrence, and/or platinum resistance (for use in a Medicare-approved demonstration project)                                                                   | Procedure | HCPCS     |
| G9117 | Oncology; disease status; ovarian cancer, limited to epithelial cancer; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                | Procedure | HCPCS     |
| G9123 | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; chronic phase not in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)                   | Procedure | HCPCS     |
| G9124 | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and /or BCR-ABL positive; accelerated phase not in hematologic cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)               | Procedure | HCPCS     |
| G9125 | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; blast phase not in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)                     | Procedure | HCPCS     |
| G9126 | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)                                     | Procedure | HCPCS     |
| G9127 | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and /or BCR-ABL positive; extent of disease unknown, under evaluation, not listed (for use in a Medicare-approved demonstration project)                                | Procedure | HCPCS     |
| G9131 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)          | Procedure | HCPCS     |
| G9132 | Oncology; disease status; prostate cancer, limited to adenocarcinoma; hormone-refractory/androgen-independent (e.g., rising PSA on antiandrogen therapy or postorchietomy); clinical metastases (for use in a Medicare-approved demonstration project)                      | Procedure | HCPCS     |
| G9133 | Oncology; disease status; prostate cancer, limited to adenocarcinoma; hormone-responsive; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)                                                                                     | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                    | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                | Category  | Code Type |
| G9139 | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; extent of disease unknown, staging in progress, not listed (for use in a Medicare-approved demonstration project) | Procedure | HCPCS     |
| G9704 | AJCC breast cancer Stage I: T1 mic or T1a documented                                                                                                                                                                                           | Procedure | HCPCS     |
| G9705 | AJCC breast cancer Stage I: T1b (tumor > 0.5 cm but ≤ 1 cm in greatest dimension) documented                                                                                                                                                   | Procedure | HCPCS     |
| G9711 | Patients with a diagnosis or past history of total colectomy or colorectal cancer                                                                                                                                                              | Procedure | HCPCS     |
| G9826 | Patient transferred to practice after initiation of chemotherapy                                                                                                                                                                               | Procedure | HCPCS     |
| G9829 | Breast adjuvant chemotherapy administered                                                                                                                                                                                                      | Procedure | HCPCS     |
| G9831 | AJCC Stage at breast cancer diagnosis = II or III                                                                                                                                                                                              | Procedure | HCPCS     |
| G9832 | AJCC Stage at breast cancer diagnosis = I (Ia or Ib) and T-Stage at breast cancer diagnosis does not equal = T1, T1a, T1b                                                                                                                      | Procedure | HCPCS     |
| G9833 | Patient transfer to practice after initiation of chemotherapy                                                                                                                                                                                  | Procedure | HCPCS     |
| G9835 | Trastuzumab administered within 12 months of diagnosis                                                                                                                                                                                         | Procedure | HCPCS     |
| G9836 | Reason for not administering trastuzumab documented (e.g., patient declined, patient died, patient transferred, contraindication or other clinical exclusion, neoadjuvant chemotherapy or radiation not complete)                              | Procedure | HCPCS     |
| G9837 | Trastuzumab not administered within 12 months of diagnosis                                                                                                                                                                                     | Procedure | HCPCS     |
| J0202 | Injection, alemtuzumab, 1 mg                                                                                                                                                                                                                   | Procedure | HCPCS     |
| J0207 | Injection, amifostine, 500 mg                                                                                                                                                                                                                  | Procedure | HCPCS     |
| J0594 | Injection, busulfan, 1 mg                                                                                                                                                                                                                      | Procedure | HCPCS     |
| J0894 | Injection, decitabine, 1 mg                                                                                                                                                                                                                    | Procedure | HCPCS     |
| J7527 | Everolimus, oral, 0.25 mg                                                                                                                                                                                                                      | Procedure | HCPCS     |
| J8501 | Aprepitant, oral, 5 mg                                                                                                                                                                                                                         | Procedure | HCPCS     |
| J8510 | Busulfan, oral, 2 mg                                                                                                                                                                                                                           | Procedure | HCPCS     |
| J8515 | Cabergoline, oral, 0.25 mg                                                                                                                                                                                                                     | Procedure | HCPCS     |
| J8520 | Capecitabine, oral, 150 mg                                                                                                                                                                                                                     | Procedure | HCPCS     |
| J8521 | Capecitabine, oral, 500 mg                                                                                                                                                                                                                     | Procedure | HCPCS     |
| J8530 | Cyclophosphamide, oral, 25 mg                                                                                                                                                                                                                  | Procedure | HCPCS     |
| J8540 | Dexamethasone, oral, 0.25 mg                                                                                                                                                                                                                   | Procedure | HCPCS     |
| J8560 | Etoposide, oral, 50 mg                                                                                                                                                                                                                         | Procedure | HCPCS     |
| J8561 | Everolimus, oral, 0.25 mg                                                                                                                                                                                                                      | Procedure | HCPCS     |
| J8562 | Fludarabine phosphate, oral, 10 mg                                                                                                                                                                                                             | Procedure | HCPCS     |
| J8565 | Gefitinib, oral, 250 mg                                                                                                                                                                                                                        | Procedure | HCPCS     |
| J8597 | Antiemetic drug, oral, not otherwise specified                                                                                                                                                                                                 | Procedure | HCPCS     |
| J8600 | Melphalan, oral, 2 mg                                                                                                                                                                                                                          | Procedure | HCPCS     |
| J8610 | Methotrexate, oral, 2.5 mg                                                                                                                                                                                                                     | Procedure | HCPCS     |
| J8650 | Nabilone, oral, 1 mg                                                                                                                                                                                                                           | Procedure | HCPCS     |
| J8655 | Netupitant 300 mg and palonosetron 0.5 mg, oral                                                                                                                                                                                                | Procedure | HCPCS     |
| J8670 | Rolapitant, oral, 1 mg                                                                                                                                                                                                                         | Procedure | HCPCS     |
| J8700 | Temozolomide, oral, 5 mg                                                                                                                                                                                                                       | Procedure | HCPCS     |
| J8705 | Topotecan, oral, 0.25 mg                                                                                                                                                                                                                       | Procedure | HCPCS     |
| J8999 | Prescription drug, oral, chemotherapeutic, NOS                                                                                                                                                                                                 | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                             | Code      |           |
|-------|-----------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                         | Category  | Code Type |
| J9000 | Injection, doxorubicin HCl, 10 mg                                                       | Procedure | HCPCS     |
| J9001 | Injection, doxorubicin HCl, all lipid formulations, 10 mg                               | Procedure | HCPCS     |
| J9002 | Injection, doxorubicin hydrochloride, liposomal, Doxil, 10 mg                           | Procedure | HCPCS     |
| J9010 | Injection, alemtuzumab, 10 mg                                                           | Procedure | HCPCS     |
| J9015 | Injection, aldesleukin, per single use vial                                             | Procedure | HCPCS     |
| J9017 | Injection, arsenic trioxide, 1 mg                                                       | Procedure | HCPCS     |
| J9019 | Injection, asparaginase (Erwinaze), 1,000 IU                                            | Procedure | HCPCS     |
| J9020 | Injection, asparaginase, not otherwise specified, 10,000 units                          | Procedure | HCPCS     |
| J9021 | Injection, asparaginase, recombinant, (Rylaze), 0.1 mg                                  | Procedure | HCPCS     |
| J9022 | Injection, atezolizumab, 10 mg                                                          | Procedure | HCPCS     |
| J9023 | Injection, avelumab, 10 mg                                                              | Procedure | HCPCS     |
| J9025 | Injection, azacitidine, 1 mg                                                            | Procedure | HCPCS     |
| J9027 | Injection, clofarabine, 1 mg                                                            | Procedure | HCPCS     |
| J9030 | BCG live intravesical instillation, 1 mg                                                | Procedure | HCPCS     |
| J9032 | Injection, belinostat, 10 mg                                                            | Procedure | HCPCS     |
| J9033 | Injection, bendamustine HCl (Treanda), 1 mg                                             | Procedure | HCPCS     |
| J9034 | Injection, bendamustine HCl (Bendeka), 1 mg                                             | Procedure | HCPCS     |
| J9035 | Injection, bevacizumab, 10 mg                                                           | Procedure | HCPCS     |
| J9036 | Injection, bendamustine HCl, (Belrapzo/bendamustine), 1 mg                              | Procedure | HCPCS     |
| J9037 | Injection, belantamab mafodotin-blmf, 0.5 mg                                            | Procedure | HCPCS     |
| J9039 | Injection, blinatumomab, 1 mcg                                                          | Procedure | HCPCS     |
| J9040 | Injection, bleomycin sulfate, 15 units                                                  | Procedure | HCPCS     |
| J9041 | Injection, bortezomib, 0.1 mg                                                           | Procedure | HCPCS     |
| J9042 | Injection, brentuximab vedotin, 1 mg                                                    | Procedure | HCPCS     |
| J9043 | Injection, cabazitaxel, 1 mg                                                            | Procedure | HCPCS     |
| J9045 | Injection, carboplatin, 50 mg                                                           | Procedure | HCPCS     |
| J9046 | Injection, bortezomib (Dr. Reddy's), not therapeutically equivalent to J9041, 0.1 mg    | Procedure | HCPCS     |
| J9047 | Injection, carfilzomib, 1 mg                                                            | Procedure | HCPCS     |
| J9048 | Injection, bortezomib (Fresenius Kabi), not therapeutically equivalent to J9041, 0.1 mg | Procedure | HCPCS     |
| J9049 | Injection, bortezomib (Hospira), not therapeutically equivalent to J9041, 0.1 mg        | Procedure | HCPCS     |
| J9050 | Injection, carmustine, 100 mg                                                           | Procedure | HCPCS     |
| J9055 | Injection, cetuximab, 10 mg                                                             | Procedure | HCPCS     |
| J9057 | Injection, copanlisib, 1 mg                                                             | Procedure | HCPCS     |
| J9060 | Injection, cisplatin, powder or solution, 10 mg                                         | Procedure | HCPCS     |
| J9061 | Injection, amivantamab-vmjw, 2 mg                                                       | Procedure | HCPCS     |
| J9062 | Cisplatin, 50 mg                                                                        | Procedure | HCPCS     |
| J9065 | Injection, cladribine, per 1 mg                                                         | Procedure | HCPCS     |
| J9070 | Cyclophosphamide, 100 mg                                                                | Procedure | HCPCS     |
| J9071 | Injection, cyclophosphamide, (AuroMedics), 5 mg                                         | Procedure | HCPCS     |
| J9080 | Cyclophosphamide, 200 mg                                                                | Procedure | HCPCS     |
| J9090 | Cyclophosphamide, 500 mg                                                                | Procedure | HCPCS     |
| J9091 | Cyclophosphamide, 1 g                                                                   | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                    | Code      |           |
|-------|----------------------------------------------------------------|-----------|-----------|
|       |                                                                | Category  | Code Type |
| J9092 | Cyclophosphamide, 2 g                                          | Procedure | HCPCS     |
| J9093 | Cyclophosphamide, lyophilized, 100 mg                          | Procedure | HCPCS     |
| J9094 | Cyclophosphamide, lyophilized, 200 mg                          | Procedure | HCPCS     |
| J9095 | Cyclophosphamide, lyophilized, 500 mg                          | Procedure | HCPCS     |
| J9096 | Cyclophosphamide, lyophilized, 1 g                             | Procedure | HCPCS     |
| J9097 | Cyclophosphamide, lyophilized, 2 g                             | Procedure | HCPCS     |
| J9098 | Injection, cytarabine liposome, 10 mg                          | Procedure | HCPCS     |
| J9100 | Injection, cytarabine, 100 mg                                  | Procedure | HCPCS     |
| J9110 | Injection, cytarabine, 500 mg                                  | Procedure | HCPCS     |
| J9118 | Injection, calaspargase pegol-mknl, 10 units                   | Procedure | HCPCS     |
| J9119 | Injection, cemiplimab-rwlc, 1 mg                               | Procedure | HCPCS     |
| J9120 | Injection, dactinomycin, 0.5 mg                                | Procedure | HCPCS     |
| J9130 | Dacarbazine, 100 mg                                            | Procedure | HCPCS     |
| J9140 | Dacarbazine, 200 mg                                            | Procedure | HCPCS     |
| J9144 | Injection, daratumumab, 10 mg and hyaluronidase-fihj           | Procedure | HCPCS     |
| J9145 | Injection, daratumumab, 10 mg                                  | Procedure | HCPCS     |
| J9150 | Injection, daunorubicin, 10 mg                                 | Procedure | HCPCS     |
| J9151 | Injection, daunorubicin citrate, liposomal formulation, 10 mg  | Procedure | HCPCS     |
| J9153 | Injection, liposomal, 1 mg daunorubicin and 2.27 mg cytarabine | Procedure | HCPCS     |
| J9155 | Injection, degarelix, 1 mg                                     | Procedure | HCPCS     |
| J9160 | Injection, denileukin diftitox, 300 mcg                        | Procedure | HCPCS     |
| J9165 | Injection, diethylstilbestrol diphosphate, 250 mg              | Procedure | HCPCS     |
| J9170 | Injection, docetaxel, 20 mg                                    | Procedure | HCPCS     |
| J9171 | Injection, docetaxel, 1 mg                                     | Procedure | HCPCS     |
| J9173 | Injection, durvalumab, 10 mg                                   | Procedure | HCPCS     |
| J9175 | Injection, Elliotts' B solution, 1 ml                          | Procedure | HCPCS     |
| J9176 | Injection, elotuzumab, 1 mg                                    | Procedure | HCPCS     |
| J9177 | Injection, enfortumab vedotin-efv, 0.25 mg                     | Procedure | HCPCS     |
| J9178 | Injection, epirubicin HCl, 2 mg                                | Procedure | HCPCS     |
| J9179 | Injection, eribulin mesylate, 0.1 mg                           | Procedure | HCPCS     |
| J9180 | Epirubicin HCl, 50 mg                                          | Procedure | HCPCS     |
| J9181 | Injection, etoposide, 10 mg                                    | Procedure | HCPCS     |
| J9182 | Etoposide, 100 mg                                              | Procedure | HCPCS     |
| J9185 | Injection, fludarabine phosphate, 50 mg                        | Procedure | HCPCS     |
| J9190 | Injection, fluorouracil, 500 mg                                | Procedure | HCPCS     |
| J9198 | Injection, gemcitabine HCl, (Infugem), 100 mg                  | Procedure | HCPCS     |
| J9200 | Injection, floxuridine, 500 mg                                 | Procedure | HCPCS     |
| J9201 | Injection, gemcitabine HCl, not otherwise specified, 200 mg    | Procedure | HCPCS     |
| J9202 | Goserelin acetate implant, per 3.6 mg                          | Procedure | HCPCS     |
| J9203 | Injection, gemtuzumab ozogamicin, 0.1 mg                       | Procedure | HCPCS     |
| J9204 | Injection, mogamulizumab-kpkc, 1 mg                            | Procedure | HCPCS     |
| J9205 | Injection, irinotecan liposome, 1 mg                           | Procedure | HCPCS     |
| J9206 | Injection, irinotecan, 20 mg                                   | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                           | Code      |           |
|-------|-----------------------------------------------------------------------|-----------|-----------|
|       |                                                                       | Category  | Code Type |
| J9207 | Injection, ixabepilone, 1 mg                                          | Procedure | HCPCS     |
| J9208 | Injection, ifosfamide, 1 g                                            | Procedure | HCPCS     |
| J9209 | Injection, mesna, 200 mg                                              | Procedure | HCPCS     |
| J9210 | Injection, emapalumab-lzsg, 1 mg                                      | Procedure | HCPCS     |
| J9211 | Injection, idarubicin HCl, 5 mg                                       | Procedure | HCPCS     |
| J9212 | Injection, interferon alfacon-1, recombinant, 1 mcg                   | Procedure | HCPCS     |
| J9213 | Injection, interferon, alfa-2a, recombinant, 3 million units          | Procedure | HCPCS     |
| J9214 | Injection, interferon, alfa-2b, recombinant, 1 million units          | Procedure | HCPCS     |
| J9215 | Injection, interferon, alfa-N3, (human leukocyte derived), 250,000 IU | Procedure | HCPCS     |
| J9216 | Injection, interferon, gamma 1-b, 3 million units                     | Procedure | HCPCS     |
| J9217 | Leuprolide acetate (for depot suspension), 7.5 mg                     | Procedure | HCPCS     |
| J9218 | Leuprolide acetate, per 1 mg                                          | Procedure | HCPCS     |
| J9219 | Leuprolide acetate implant, 65 mg                                     | Procedure | HCPCS     |
| J9223 | Injection, lurbnectedin, 0.1 mg                                       | Procedure | HCPCS     |
| J9225 | Histrelin implant (Vantas), 50 mg                                     | Procedure | HCPCS     |
| J9226 | Histrelin implant (Supprelin LA), 50 mg                               | Procedure | HCPCS     |
| J9227 | Injection, isatuximab-irfc, 10 mg                                     | Procedure | HCPCS     |
| J9228 | Injection, ipilimumab, 1 mg                                           | Procedure | HCPCS     |
| J9229 | Injection, inotuzumab ozogamicin, 0.1 mg                              | Procedure | HCPCS     |
| J9230 | Injection, mechlorethamine HCl, (nitrogen mustard), 10 mg             | Procedure | HCPCS     |
| J9245 | Injection, melphalan HCl, not otherwise specified, 50 mg              | Procedure | HCPCS     |
| J9246 | Injection, melphalan (Evomela), 1 mg                                  | Procedure | HCPCS     |
| J9247 | Injection, melphalan flufenamide, 1 mg                                | Procedure | HCPCS     |
| J9250 | Methotrexate sodium, 5 mg                                             | Procedure | HCPCS     |
| J9260 | Methotrexate sodium, 50 mg                                            | Procedure | HCPCS     |
| J9261 | Injection, nelarabine, 50 mg                                          | Procedure | HCPCS     |
| J9262 | Injection, omacetaxine mepesuccinate, 0.01 mg                         | Procedure | HCPCS     |
| J9263 | Injection, oxaliplatin, 0.5 mg                                        | Procedure | HCPCS     |
| J9264 | Injection, paclitaxel protein-bound particles, 1 mg                   | Procedure | HCPCS     |
| J9265 | Injection, paclitaxel, 30 mg                                          | Procedure | HCPCS     |
| J9266 | Injection, pegaspargase, per single dose vial                         | Procedure | HCPCS     |
| J9267 | Injection, paclitaxel, 1 mg                                           | Procedure | HCPCS     |
| J9268 | Injection, pentostatin, 10 mg                                         | Procedure | HCPCS     |
| J9269 | Injection, tagraxofusp-erzs, 10 mcg                                   | Procedure | HCPCS     |
| J9270 | Injection, plicamycin, 2.5 mg                                         | Procedure | HCPCS     |
| J9271 | Injection, pembrolizumab, 1 mg                                        | Procedure | HCPCS     |
| J9272 | Injection, dostarlimab-gxly, 10 mg                                    | Procedure | HCPCS     |
| J9273 | Injection, tisotumab vedotin-tftv, 1 mg                               | Procedure | HCPCS     |
| J9274 | Injection, tebentafusp-tebn, 1 mcg                                    | Procedure | HCPCS     |
| J9280 | Injection, mitomycin, 5 mg                                            | Procedure | HCPCS     |
| J9281 | Mitomycin pyelocalyceal instillation, 1 mg                            | Procedure | HCPCS     |
| J9285 | Injection, olaratumab, 10 mg                                          | Procedure | HCPCS     |
| J9290 | Mitomycin, 20 mg                                                      | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                             | Code      |           |
|-------|-------------------------------------------------------------------------|-----------|-----------|
|       |                                                                         | Category  | Code Type |
| J9291 | Mitomycin, 40 mg                                                        | Procedure | HCPCS     |
| J9293 | Injection, mitoxantrone HCl, per 5 mg                                   | Procedure | HCPCS     |
| J9295 | Injection, necitumumab, 1 mg                                            | Procedure | HCPCS     |
| J9298 | Injection, nivolumab and relatlimab-rmbw, 3 mg/1 mg                     | Procedure | HCPCS     |
| J9299 | Injection, nivolumab, 1 mg                                              | Procedure | HCPCS     |
| J9300 | Injection, gemtuzumab ozogamicin, 5 mg                                  | Procedure | HCPCS     |
| J9301 | Injection, obinutuzumab, 10 mg                                          | Procedure | HCPCS     |
| J9302 | Injection, ofatumumab, 10 mg                                            | Procedure | HCPCS     |
| J9303 | Injection, panitumumab, 10 mg                                           | Procedure | HCPCS     |
| J9304 | Injection, pemetrexed (Pemfexy), 10 mg                                  | Procedure | HCPCS     |
| J9305 | Injection, pemetrexed, NOS, 10 mg                                       | Procedure | HCPCS     |
| J9306 | Injection, pertuzumab, 1 mg                                             | Procedure | HCPCS     |
| J9307 | Injection, pralatrexate, 1 mg                                           | Procedure | HCPCS     |
| J9308 | Injection, ramucirumab, 5 mg                                            | Procedure | HCPCS     |
| J9309 | Injection, polatuzumab vedotin-piiq, 1 mg                               | Procedure | HCPCS     |
| J9310 | Injection, rituximab, 100 mg                                            | Procedure | HCPCS     |
| J9311 | Injection, rituximab 10 mg and hyaluronidase                            | Procedure | HCPCS     |
| J9312 | Injection, rituximab, 10 mg                                             | Procedure | HCPCS     |
| J9313 | Injection, moxetumomab pasudotox-tdfk, 0.01 mg                          | Procedure | HCPCS     |
| J9315 | Injection, romidepsin, 1 mg                                             | Procedure | HCPCS     |
| J9316 | Injection, pertuzumab, trastuzumab, and hyaluronidase-zzxf, per 10 mg   | Procedure | HCPCS     |
| J9317 | Injection, sacituzumab govitecan-hziy, 2.5 mg                           | Procedure | HCPCS     |
| J9318 | Injection, romidepsin, nonlyophilized, 0.1 mg                           | Procedure | HCPCS     |
| J9319 | Injection, romidepsin, lyophilized, 0.1 mg                              | Procedure | HCPCS     |
| J9320 | Injection, streptozocin, 1 g                                            | Procedure | HCPCS     |
| J9325 | Injection, talimogene laherparepvec, per 1 million plaque forming units | Procedure | HCPCS     |
| J9328 | Injection, temozolomide, 1 mg                                           | Procedure | HCPCS     |
| J9330 | Injection, temsirolimus, 1 mg                                           | Procedure | HCPCS     |
| J9331 | Injection, sirolimus protein-bound particles, 1 mg                      | Procedure | HCPCS     |
| J9332 | Injection, efgartigimod alfa-fcab, 2 mg                                 | Procedure | HCPCS     |
| J9340 | Injection, thiotepa, 15 mg                                              | Procedure | HCPCS     |
| J9348 | Injection, naxitamab-gqgk, 1 mg                                         | Procedure | HCPCS     |
| J9349 | Injection, tafasitamab-cxix, 2 mg                                       | Procedure | HCPCS     |
| J9350 | Injection, mosunetuzumab-axgb, 1 mg                                     | Procedure | HCPCS     |
| J9351 | Injection, topotecan, 0.1 mg                                            | Procedure | HCPCS     |
| J9352 | Injection, trabectedin, 0.1 mg                                          | Procedure | HCPCS     |
| J9353 | Injection, margetuximab-cmkb, 5 mg                                      | Procedure | HCPCS     |
| J9354 | Injection, ado-trastuzumab emtansine, 1 mg                              | Procedure | HCPCS     |
| J9355 | Injection, trastuzumab, excludes biosimilar, 10 mg                      | Procedure | HCPCS     |
| J9356 | Injection, trastuzumab, 10 mg and hyaluronidase-oyzk                    | Procedure | HCPCS     |
| J9357 | Injection, valrubicin, intravesical, 200 mg                             | Procedure | HCPCS     |
| J9358 | Injection, fam-trastuzumab deruxtecan-nxki, 1 mg                        | Procedure | HCPCS     |
| J9359 | Injection, loncastuximab tesirine-lpyl, 0.075 mg                        | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                         | Code      |           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                     | Category  | Code Type |
| J9360 | Injection, vinblastine sulfate, 1 mg                                                                                                                | Procedure | HCPCS     |
| J9370 | Vincristine sulfate, 1 mg                                                                                                                           | Procedure | HCPCS     |
| J9371 | Injection, vincristine sulfate liposome, 1 mg                                                                                                       | Procedure | HCPCS     |
| J9375 | Vincristine sulfate, 2 mg                                                                                                                           | Procedure | HCPCS     |
| J9380 | Injection, teclistamab-cqyv, 0.5 mg                                                                                                                 | Procedure | HCPCS     |
| J9390 | Injection, vinorelbine tartrate, 10 mg                                                                                                              | Procedure | HCPCS     |
| J9393 | Injection, fulvestrant (Teva) not therapeutically equivalent to J9395, 25 mg                                                                        | Procedure | HCPCS     |
| J9394 | Injection, fulvestrant (Fresenius Kabi) not therapeutically equivalent to J9395, 25 mg                                                              | Procedure | HCPCS     |
| J9395 | Injection, fulvestrant, 25 mg                                                                                                                       | Procedure | HCPCS     |
| J9400 | Injection, ziv-aflibercept, 1 mg                                                                                                                    | Procedure | HCPCS     |
| J9600 | Injection, porfimer sodium, 75 mg                                                                                                                   | Procedure | HCPCS     |
| J9999 | Not otherwise classified, antineoplastic drugs                                                                                                      | Procedure | HCPCS     |
| M0001 | Advancing Cancer Care MIPS Value Pathways                                                                                                           | Procedure | HCPCS     |
| M1037 | Patients with a diagnosis of lumbar spine region cancer at the time of the procedure                                                                | Procedure | HCPCS     |
| M1041 | Patient had cancer, acute fracture or infection related to the lumbar spine or patient had neuromuscular, idiopathic or congenital lumbar scoliosis | Procedure | HCPCS     |
| M1051 | Patient had cancer, acute fracture or infection related to the lumbar spine or patient had neuromuscular, idiopathic or congenital lumbar scoliosis | Procedure | HCPCS     |
| M1072 | Radiation therapy for anal cancer under the Radiation Oncology model, 90-day episode, professional component                                        | Procedure | HCPCS     |
| M1073 | Radiation therapy for anal cancer under the Radiation Oncology model, 90-day episode, technical component                                           | Procedure | HCPCS     |
| M1074 | Radiation therapy for bladder cancer under the Radiation Oncology model, 90-day episode, professional component                                     | Procedure | HCPCS     |
| M1075 | Radiation therapy for bladder cancer under the Radiation Oncology model, 90-day episode, technical component                                        | Procedure | HCPCS     |
| M1080 | Radiation therapy for breast cancer under the Radiation Oncology model, 90-day episode, professional component                                      | Procedure | HCPCS     |
| M1081 | Radiation therapy for breast cancer under the Radiation Oncology model, 90-day episode, technical component                                         | Procedure | HCPCS     |
| M1082 | Radiation therapy for cervical cancer under the Radiation Oncology model, 90-day episode, professional component                                    | Procedure | HCPCS     |
| M1083 | Radiation therapy for cervical cancer under the Radiation Oncology model, 90-day episode, technical component                                       | Procedure | HCPCS     |
| M1084 | Radiation therapy for CNS tumors under the Radiation Oncology model, 90-day episode, professional component                                         | Procedure | HCPCS     |
| M1085 | Radiation therapy for CNS tumors under the Radiation Oncology model, 90-day episode, technical component                                            | Procedure | HCPCS     |
| M1086 | Radiation therapy for colorectal cancer under the Radiation Oncology model, 90-day episode, professional component                                  | Procedure | HCPCS     |
| M1087 | Radiation therapy for colorectal cancer under the Radiation Oncology model, 90-day episode, technical component                                     | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                            | Code      |           |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Category  | Code Type |
| M1088   | Radiation therapy for head and neck cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| M1089   | Radiation therapy for head and neck cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| M1094   | Radiation therapy for lung cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS     |
| M1095   | Radiation therapy for lung cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| M1098   | Radiation therapy for pancreatic cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| M1099   | Radiation therapy for pancreatic cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |
| M1100   | Radiation therapy for prostate cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| M1101   | Radiation therapy for prostate cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| M1102   | Radiation therapy for upper GI cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| M1103   | Radiation therapy for upper GI cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| M1104   | Radiation therapy for uterine cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |
| M1105   | Radiation therapy for uterine cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS     |
| M1156   | Patient received active chemotherapy any time during the measurement period                                                                                                                                                                                                                                                                                                                                                                            | Procedure | HCPCS     |
| M1194   | Documentation of medical reason(s) surgical pathology reports did not contain impression or conclusion of or recommendation for testing of MMR by immunohistochemistry, MSI by DNA-based testing status, or both tests were not included (e.g., patient will not be treated with checkpoint inhibitor therapy, no residual carcinoma is present in the sample [tissue exhausted or status post neoadjuvant treatment], insufficient tumor for testing) | Procedure | HCPCS     |
| O9A     | Maternal malignant neoplasms, traumatic injuries and abuse classifiable elsewhere but complicating pregnancy, childbirth and the puerperium                                                                                                                                                                                                                                                                                                            | Diagnosis | ICD-10-CM |
| O9A.1   | Malignant neoplasm complicating pregnancy, childbirth and the puerperium                                                                                                                                                                                                                                                                                                                                                                               | Diagnosis | ICD-10-CM |
| O9A.11  | Malignant neoplasm complicating pregnancy                                                                                                                                                                                                                                                                                                                                                                                                              | Diagnosis | ICD-10-CM |
| O9A.111 | Malignant neoplasm complicating pregnancy, first trimester                                                                                                                                                                                                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| O9A.112 | Malignant neoplasm complicating pregnancy, second trimester                                                                                                                                                                                                                                                                                                                                                                                            | Diagnosis | ICD-10-CM |
| O9A.113 | Malignant neoplasm complicating pregnancy, third trimester                                                                                                                                                                                                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| O9A.119 | Malignant neoplasm complicating pregnancy, unspecified trimester                                                                                                                                                                                                                                                                                                                                                                                       | Diagnosis | ICD-10-CM |
| O9A.12  | Malignant neoplasm complicating childbirth                                                                                                                                                                                                                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| O9A.13  | Malignant neoplasm complicating the puerperium                                                                                                                                                                                                                                                                                                                                                                                                         | Diagnosis | ICD-10-CM |
| Q0083   | Chemotherapy administration by other than infusion technique only (e.g., subcutaneous, intramuscular, push), per visit                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                  | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                              | Category  | Code Type |
| Q0084 | Chemotherapy administration by infusion technique only, per visit                                                                                                                                                            | Procedure | HCPCS     |
| Q0085 | Chemotherapy administration by both infusion technique and other technique(s) (e.g. subcutaneous, intramuscular, push), per visit                                                                                            | Procedure | HCPCS     |
| Q0161 | Chlorpromazine HCl, 5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen        | Procedure | HCPCS     |
| Q0162 | Ondansetron 1 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                | Procedure | HCPCS     |
| Q0163 | Diphenhydramine HCl, 50 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at time of chemotherapy treatment not to exceed a 48-hour dosage regimen           | Procedure | HCPCS     |
| Q0164 | Prochlorperazine maleate, 5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen  | Procedure | HCPCS     |
| Q0165 | Prochlorperazine maleate, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen | Procedure | HCPCS     |
| Q0166 | Granisetron HCl, 1 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen           | Procedure | HCPCS     |
| Q0167 | Dronabinol, 2.5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen              | Procedure | HCPCS     |
| Q0168 | Dronabinol, 5 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                | Procedure | HCPCS     |
| Q0169 | Promethazine HCl, 12.5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure | HCPCS     |
| Q0170 | Promethazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen         | Procedure | HCPCS     |
| Q0171 | Chlorpromazine HCl, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure | HCPCS     |
| Q0172 | Chlorpromazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure | HCPCS     |
| Q0173 | Trimethobenzamide HCl, 250 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen   | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                  | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                              | Category  | Code Type |
| Q0174 | Thiethylperazine maleate, 10 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen | Procedure | HCPCS     |
| Q0175 | Perphenazine, 4 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen              | Procedure | HCPCS     |
| Q0176 | Perphenazine, 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen              | Procedure | HCPCS     |
| Q0177 | Hydroxyzine pamoate, 25 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen      | Procedure | HCPCS     |
| Q0178 | Hydroxyzine pamoate, 50 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen      | Procedure | HCPCS     |
| Q0179 | Ondansetron HCl 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen            | Procedure | HCPCS     |
| Q0180 | Dolasetron mesylate, 100 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen     | Procedure | HCPCS     |
| Q0181 | Unspecified oral dosage form, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen          | Procedure | HCPCS     |
| Q2025 | Fludarabine phosphate, oral, 1 mg                                                                                                                                                                                            | Procedure | HCPCS     |
| Q2043 | Sipuleucel-T, minimum of 50 million autologous CD54+ cells activated with PAP-GM-CSF, including leukapheresis and all other preparatory procedures, per infusion                                                             | Procedure | HCPCS     |
| Q2048 | Injection, doxorubicin hydrochloride, liposomal, DOXIL, 10 mg                                                                                                                                                                | Procedure | HCPCS     |
| Q2049 | Injection, doxorubicin HCl, liposomal, imported Lipodox, 10 mg                                                                                                                                                               | Procedure | HCPCS     |
| Q2050 | Injection, doxorubicin HCl, liposomal, not otherwise specified, 10 mg                                                                                                                                                        | Procedure | HCPCS     |
| Q5112 | Injection, trastuzumab-dttb, biosimilar, (Ontruzant), 10 mg                                                                                                                                                                  | Procedure | HCPCS     |
| Q5113 | Injection, trastuzumab-pkrb, biosimilar, (Herzuma), 10 mg                                                                                                                                                                    | Procedure | HCPCS     |
| Q5114 | Injection, Trastuzumab-dkst, biosimilar, (Ogivri), 10 mg                                                                                                                                                                     | Procedure | HCPCS     |
| Q5115 | Injection, rituximab-abbs, biosimilar, (Truxima), 10 mg                                                                                                                                                                      | Procedure | HCPCS     |
| Q5116 | Injection, trastuzumab-qyyp, biosimilar, (Trazimera), 10 mg                                                                                                                                                                  | Procedure | HCPCS     |
| Q5117 | Injection, trastuzumab-anns, biosimilar, (Kanjinti), 10 mg                                                                                                                                                                   | Procedure | HCPCS     |
| Q9979 | Injection, Alemtuzumab, 1 mg                                                                                                                                                                                                 | Procedure | HCPCS     |
| S0087 | Injection, alemtuzumab, 30 mg                                                                                                                                                                                                | Procedure | HCPCS     |
| S0088 | Imatinib, 100 mg                                                                                                                                                                                                             | Procedure | HCPCS     |
| S0108 | Mercaptopurine, oral, 50 mg                                                                                                                                                                                                  | Procedure | HCPCS     |
| S0115 | Bortezomib, 3.5 mg                                                                                                                                                                                                           | Procedure | HCPCS     |
| S0116 | Bevacizumab, 100 mg                                                                                                                                                                                                          | Procedure | HCPCS     |
| S0168 | Injection, azacitidine, 100 mg                                                                                                                                                                                               | Procedure | HCPCS     |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code  | Description                                                                                                                                                                                                                                                         | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                     | Category  | Code Type |
| S0172 | Chlorambucil, oral, 2 mg                                                                                                                                                                                                                                            | Procedure | HCPCS     |
| S0176 | Hydroxyurea, oral, 500 mg                                                                                                                                                                                                                                           | Procedure | HCPCS     |
| S0178 | Lomustine, oral, 10 mg                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| S0182 | Procarbazine HCl, oral, 50 mg                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| S0353 | Treatment planning and care coordination management for cancer initial treatment                                                                                                                                                                                    | Procedure | HCPCS     |
| S0354 | Treatment planning and care coordination management for cancer established patient with a change of regimen                                                                                                                                                         | Procedure | HCPCS     |
| S2095 | Transcatheter occlusion or embolization for tumor destruction, percutaneous, any method, using yttrium-90 microspheres                                                                                                                                              | Procedure | HCPCS     |
| S2107 | Adoptive immunotherapy i.e. development of specific antitumor reactivity (e.g., tumor-infiltrating lymphocyte therapy) per course of treatment                                                                                                                      | Procedure | HCPCS     |
| S2210 | Cryosurgical ablation (in situ destruction) of tumorous tissue, one or more lesions; liver                                                                                                                                                                          | Procedure | HCPCS     |
| S3700 | Bladder tumor-associated antigen test                                                                                                                                                                                                                               | Procedure | HCPCS     |
| S3711 | Circulating tumor cell test                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| S3721 | Prostate cancer antigen 3 (PCA3) testing                                                                                                                                                                                                                            | Procedure | HCPCS     |
| S3820 | Complete BRCA1 and BRCA2 gene sequence analysis for susceptibility to breast and ovarian cancer                                                                                                                                                                     | Procedure | HCPCS     |
| S3822 | Single mutation analysis (in individual with a known BRCA1 or BRCA2 mutation in the family) for susceptibility to breast and ovarian cancer                                                                                                                         | Procedure | HCPCS     |
| S3823 | Three-mutation BRCA1 and BRCA2 analysis for susceptibility to breast and ovarian cancer in Ashkenazi individuals                                                                                                                                                    | Procedure | HCPCS     |
| S3830 | Complete MLH1 and MSH2 gene sequence analysis for hereditary nonpolyposis colorectal cancer (HNPCC) genetic testing                                                                                                                                                 | Procedure | HCPCS     |
| S3831 | Single-mutation analysis (in individual with a known MLH1 and MSH2 mutation in the family) for hereditary nonpolyposis colorectal cancer (HNPCC) genetic testing                                                                                                    | Procedure | HCPCS     |
| S3854 | Gene expression profiling panel for use in the management of breast cancer treatment                                                                                                                                                                                | Procedure | HCPCS     |
| S5019 | Chemotherapy administration supplies (with pump), per diem                                                                                                                                                                                                          | Procedure | HCPCS     |
| S5020 | Chemotherapy administration supplies (without pump), per diem                                                                                                                                                                                                       | Procedure | HCPCS     |
| S9329 | Home infusion therapy, chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem (do not use this code with S9330 or S9331) | Procedure | HCPCS     |
| S9330 | Home infusion therapy, continuous (24 hours or more) chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem              | Procedure | HCPCS     |
| S9331 | Home infusion therapy, intermittent (less than 24 hours) chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem          | Procedure | HCPCS     |



**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code   | Description                                                                                                                                                                                                                                                          | Code      |           |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                                                                                                                                                      | Category  | Code Type |
| S9359  | Home infusion therapy, antitumor necrosis factor intravenous therapy; (e.g., Infliximab); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem | Procedure | HCPCS     |
| S9425  | Nursing services and all necessary supplies and additives for home iv chemotherapy (via iv push, gravity drip, stationary pump, ambulatory belt pump), per diem (hydration solution and drugs not included)                                                          | Procedure | HCPCS     |
| V10    | Personal history of malignant neoplasm                                                                                                                                                                                                                               | Diagnosis | ICD-9-CM  |
| V10.0  | Personal history of malignant neoplasm of gastrointestinal tract                                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| V10.00 | Personal history of malignant neoplasm of unspecified site in gastrointestinal tract                                                                                                                                                                                 | Diagnosis | ICD-9-CM  |
| V10.01 | Personal history of malignant neoplasm of tongue                                                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| V10.02 | Personal history of malignant neoplasm of other and unspecified parts of oral cavity and pharynx                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| V10.03 | Personal history of malignant neoplasm of esophagus                                                                                                                                                                                                                  | Diagnosis | ICD-9-CM  |
| V10.04 | Personal history of malignant neoplasm of stomach                                                                                                                                                                                                                    | Diagnosis | ICD-9-CM  |
| V10.05 | Personal history of malignant neoplasm of large intestine                                                                                                                                                                                                            | Diagnosis | ICD-9-CM  |
| V10.06 | Personal history of malignant neoplasm of rectum, rectosigmoid junction, and anus                                                                                                                                                                                    | Diagnosis | ICD-9-CM  |
| V10.07 | Personal history of malignant neoplasm of liver                                                                                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| V10.09 | Personal history of malignant neoplasm of other site in gastrointestinal tract                                                                                                                                                                                       | Diagnosis | ICD-9-CM  |
| V10.1  | Personal history of malignant neoplasm of trachea, bronchus, and lung                                                                                                                                                                                                | Diagnosis | ICD-9-CM  |
| V10.11 | Personal history of malignant neoplasm of bronchus and lung                                                                                                                                                                                                          | Diagnosis | ICD-9-CM  |
| V10.12 | Personal history of malignant neoplasm of trachea                                                                                                                                                                                                                    | Diagnosis | ICD-9-CM  |
| V10.2  | Personal history of malignant neoplasm of other respiratory and intrathoracic organs                                                                                                                                                                                 | Diagnosis | ICD-9-CM  |
| V10.20 | Personal history of malignant neoplasm of unspecified respiratory organ                                                                                                                                                                                              | Diagnosis | ICD-9-CM  |
| V10.21 | Personal history of malignant neoplasm of larynx                                                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| V10.22 | Personal history of malignant neoplasm of nasal cavities, middle ear, and accessory sinuses                                                                                                                                                                          | Diagnosis | ICD-9-CM  |
| V10.29 | Personal history of malignant neoplasm of other respiratory and intrathoracic organs                                                                                                                                                                                 | Diagnosis | ICD-9-CM  |
| V10.3  | Personal history of malignant neoplasm of breast                                                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| V10.4  | Personal history of malignant neoplasm of genital organs                                                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| V10.40 | Personal history of malignant neoplasm of unspecified female genital organ                                                                                                                                                                                           | Diagnosis | ICD-9-CM  |
| V10.41 | Personal history of malignant neoplasm of cervix uteri                                                                                                                                                                                                               | Diagnosis | ICD-9-CM  |
| V10.42 | Personal history of malignant neoplasm of other parts of uterus                                                                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| V10.43 | Personal history of malignant neoplasm of ovary                                                                                                                                                                                                                      | Diagnosis | ICD-9-CM  |
| V10.44 | Personal history of malignant neoplasm of other female genital organs                                                                                                                                                                                                | Diagnosis | ICD-9-CM  |
| V10.45 | Personal history of malignant neoplasm of unspecified male genital organ                                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| V10.46 | Personal history of malignant neoplasm of prostate                                                                                                                                                                                                                   | Diagnosis | ICD-9-CM  |
| V10.47 | Personal history of malignant neoplasm of testis                                                                                                                                                                                                                     | Diagnosis | ICD-9-CM  |
| V10.48 | Personal history of malignant neoplasm of epididymis                                                                                                                                                                                                                 | Diagnosis | ICD-9-CM  |
| V10.49 | Personal history of malignant neoplasm of other male genital organs                                                                                                                                                                                                  | Diagnosis | ICD-9-CM  |
| V10.5  | Personal history of malignant neoplasm of urinary organs                                                                                                                                                                                                             | Diagnosis | ICD-9-CM  |
| V10.50 | Personal history of malignant neoplasm of unspecified urinary organ                                                                                                                                                                                                  | Diagnosis | ICD-9-CM  |
| V10.51 | Personal history of malignant neoplasm of bladder                                                                                                                                                                                                                    | Diagnosis | ICD-9-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                                                              | Code      |            |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                                          | Category  | Code Type  |
| V10.53  | Personal history of malignant neoplasm, renal pelvis                                                                                                     | Diagnosis | ICD-9-CM   |
| V10.59  | Personal history of malignant neoplasm of other urinary organ                                                                                            | Diagnosis | ICD-9-CM   |
| V10.60  | Personal history of unspecified leukemia                                                                                                                 | Diagnosis | ICD-9-CM   |
| V10.61  | Personal history of lymphoid leukemia                                                                                                                    | Diagnosis | ICD-9-CM   |
| V10.62  | Personal history of myeloid leukemia                                                                                                                     | Diagnosis | ICD-9-CM   |
| V10.63  | Personal history of monocytic leukemia                                                                                                                   | Diagnosis | ICD-9-CM   |
| V10.69  | Personal history of other leukemia                                                                                                                       | Diagnosis | ICD-9-CM   |
| V10.7   | Personal history of other lymphatic and hematopoietic neoplasms                                                                                          | Diagnosis | ICD-9-CM   |
| V10.71  | Personal history of lymphosarcoma and reticulosarcoma                                                                                                    | Diagnosis | ICD-9-CM   |
| V10.72  | Personal history of Hodgkin's disease                                                                                                                    | Diagnosis | ICD-9-CM   |
| V10.79  | Personal history of other lymphatic and hematopoietic neoplasm                                                                                           | Diagnosis | ICD-9-CM   |
| V10.8   | Personal history of malignant neoplasm of other sites                                                                                                    | Diagnosis | ICD-9-CM   |
| V10.81  | Personal history of malignant neoplasm of bone                                                                                                           | Diagnosis | ICD-9-CM   |
| V10.82  | Personal history of malignant melanoma of skin                                                                                                           | Diagnosis | ICD-9-CM   |
| V10.83  | Personal history of other malignant neoplasm of skin                                                                                                     | Diagnosis | ICD-9-CM   |
| V10.84  | Personal history of malignant neoplasm of eye                                                                                                            | Diagnosis | ICD-9-CM   |
| V10.85  | Personal history of malignant neoplasm of brain                                                                                                          | Diagnosis | ICD-9-CM   |
| V10.86  | Personal history of malignant neoplasm of other parts of nervous system                                                                                  | Diagnosis | ICD-9-CM   |
| V10.87  | Personal history of malignant neoplasm of thyroid                                                                                                        | Diagnosis | ICD-9-CM   |
| V10.88  | Personal history of malignant neoplasm of other endocrine glands and related structures                                                                  | Diagnosis | ICD-9-CM   |
| V10.89  | Personal history of malignant neoplasm of other site                                                                                                     | Diagnosis | ICD-9-CM   |
| V10.9   | Other and unspecified personal history of malignant neoplasm                                                                                             | Diagnosis | ICD-9-CM   |
| V10.90  | Personal history of unspecified malignant neoplasm                                                                                                       | Diagnosis | ICD-9-CM   |
| V10.91  | Personal history of malignant neuroendocrine tumor                                                                                                       | Diagnosis | ICD-9-CM   |
| V13.89  | Personal history of other specified diseases                                                                                                             | Diagnosis | ICD-9-CM   |
| V87.41  | Personal history of antineoplastic chemotherapy                                                                                                          | Diagnosis | ICD-9-CM   |
| XW03351 | Introduction of Blinatumomab Antineoplastic Immunotherapy into Peripheral Vein, Percutaneous Approach, New Technology Group 1                            | Procedure | ICD-10-PCS |
| XW033B3 | Introduction of Cytarabine and Daunorubicin Liposome Antineoplastic into Peripheral Vein, Percutaneous Approach, New Technology Group 3                  | Procedure | ICD-10-PCS |
| XW033C3 | Introduction of Engineered Autologous Chimeric Antigen Receptor T-cell Immunotherapy into Peripheral Vein, Percutaneous Approach, New Technology Group 3 | Procedure | ICD-10-PCS |
| XW033Q5 | Introduction of Tagraxofusp-erzs Antineoplastic into Peripheral Vein, Percutaneous Approach, New Technology Group 5                                      | Procedure | ICD-10-PCS |
| XW033S5 | Introduction of Iobenguane I-131 Antineoplastic into Peripheral Vein, Percutaneous Approach, New Technology Group 5                                      | Procedure | ICD-10-PCS |
| XW04351 | Introduction of Blinatumomab Antineoplastic Immunotherapy into Central Vein, Percutaneous Approach, New Technology Group 1                               | Procedure | ICD-10-PCS |
| XW043B3 | Introduction of Cytarabine and Daunorubicin Liposome Antineoplastic into Central Vein, Percutaneous Approach, New Technology Group 3                     | Procedure | ICD-10-PCS |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                                      | Code      |            |
|---------|------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                  | Category  | Code Type  |
| XW043C3 | Introduction of Engineered Autologous Chimeric Antigen Receptor T-cell                                           | Procedure | ICD-10-PCS |
| XW043Q5 | Immunotherapy into Central Vein, Percutaneous Approach, New Technology Group 3                                   | Procedure | ICD-10-PCS |
| XW043S5 | Introduction of Tagraxofusp-erzs Antineoplastic into Central Vein, Percutaneous Approach, New Technology Group 5 | Procedure | ICD-10-PCS |
| XW043S5 | Introduction of Iobenguane I-131 Antineoplastic into Central Vein, Percutaneous Approach, New Technology Group 5 | Procedure | ICD-10-PCS |
| XW0DXL5 | Introduction of Erdafitinib Antineoplastic into Mouth and Pharynx, External Approach, New Technology Group 5     | Procedure | ICD-10-PCS |
| XW0DXR5 | Introduction of Venetoclax Antineoplastic into Mouth and Pharynx, External Approach, New Technology Group 5      | Procedure | ICD-10-PCS |
| XW0DXT5 | Introduction of Ruxolitinib into Mouth and Pharynx, External Approach, New Technology Group 5                    | Procedure | ICD-10-PCS |
| XW0DXV5 | Introduction of Gilteritinib Antineoplastic into Mouth and Pharynx, External Approach, New Technology Group 5    | Procedure | ICD-10-PCS |
| Z85     | Personal history of malignant neoplasm                                                                           | Diagnosis | ICD-10-CM  |
| Z85.0   | Personal history of malignant neoplasm of digestive organs                                                       | Diagnosis | ICD-10-CM  |
| Z85.00  | Personal history of malignant neoplasm of unspecified digestive organ                                            | Diagnosis | ICD-10-CM  |
| Z85.01  | Personal history of malignant neoplasm of esophagus                                                              | Diagnosis | ICD-10-CM  |
| Z85.02  | Personal history of malignant neoplasm of stomach                                                                | Diagnosis | ICD-10-CM  |
| Z85.020 | Personal history of malignant carcinoid tumor of stomach                                                         | Diagnosis | ICD-10-CM  |
| Z85.028 | Personal history of other malignant neoplasm of stomach                                                          | Diagnosis | ICD-10-CM  |
| Z85.03  | Personal history of malignant neoplasm of large intestine                                                        | Diagnosis | ICD-10-CM  |
| Z85.030 | Personal history of malignant carcinoid tumor of large intestine                                                 | Diagnosis | ICD-10-CM  |
| Z85.038 | Personal history of other malignant neoplasm of large intestine                                                  | Diagnosis | ICD-10-CM  |
| Z85.04  | Personal history of malignant neoplasm of rectum, rectosigmoid junction, and anus                                | Diagnosis | ICD-10-CM  |
| Z85.040 | Personal history of malignant carcinoid tumor of rectum                                                          | Diagnosis | ICD-10-CM  |
| Z85.048 | Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus                          | Diagnosis | ICD-10-CM  |
| Z85.05  | Personal history of malignant neoplasm of liver                                                                  | Diagnosis | ICD-10-CM  |
| Z85.06  | Personal history of malignant neoplasm of small intestine                                                        | Diagnosis | ICD-10-CM  |
| Z85.060 | Personal history of malignant carcinoid tumor of small intestine                                                 | Diagnosis | ICD-10-CM  |
| Z85.068 | Personal history of other malignant neoplasm of small intestine                                                  | Diagnosis | ICD-10-CM  |
| Z85.07  | Personal history of malignant neoplasm of pancreas                                                               | Diagnosis | ICD-10-CM  |
| Z85.09  | Personal history of malignant neoplasm of other digestive organs                                                 | Diagnosis | ICD-10-CM  |
| Z85.1   | Personal history of malignant neoplasm of trachea, bronchus and lung                                             | Diagnosis | ICD-10-CM  |
| Z85.11  | Personal history of malignant neoplasm of bronchus and lung                                                      | Diagnosis | ICD-10-CM  |
| Z85.110 | Personal history of malignant carcinoid tumor of bronchus and lung                                               | Diagnosis | ICD-10-CM  |
| Z85.118 | Personal history of other malignant neoplasm of bronchus and lung                                                | Diagnosis | ICD-10-CM  |
| Z85.12  | Personal history of malignant neoplasm of trachea                                                                | Diagnosis | ICD-10-CM  |
| Z85.2   | Personal history of malignant neoplasm of other respiratory and intrathoracic organs                             | Diagnosis | ICD-10-CM  |
| Z85.20  | Personal history of malignant neoplasm of unspecified respiratory organ                                          | Diagnosis | ICD-10-CM  |
| Z85.21  | Personal history of malignant neoplasm of larynx                                                                 | Diagnosis | ICD-10-CM  |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                                                  | Code      |           |
|---------|----------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                              | Category  | Code Type |
| Z85.22  | Personal history of malignant neoplasm of nasal cavities, middle ear, and accessory sinuses  | Diagnosis | ICD-10-CM |
| Z85.23  | Personal history of malignant neoplasm of thymus                                             | Diagnosis | ICD-10-CM |
| Z85.230 | Personal history of malignant carcinoid tumor of thymus                                      | Diagnosis | ICD-10-CM |
| Z85.238 | Personal history of other malignant neoplasm of thymus                                       | Diagnosis | ICD-10-CM |
| Z85.29  | Personal history of malignant neoplasm of other respiratory and intrathoracic organs         | Diagnosis | ICD-10-CM |
| Z85.3   | Personal history of malignant neoplasm of breast                                             | Diagnosis | ICD-10-CM |
| Z85.4   | Personal history of malignant neoplasm of genital organs                                     | Diagnosis | ICD-10-CM |
| Z85.40  | Personal history of malignant neoplasm of unspecified female genital organ                   | Diagnosis | ICD-10-CM |
| Z85.41  | Personal history of malignant neoplasm of cervix uteri                                       | Diagnosis | ICD-10-CM |
| Z85.42  | Personal history of malignant neoplasm of other parts of uterus                              | Diagnosis | ICD-10-CM |
| Z85.43  | Personal history of malignant neoplasm of ovary                                              | Diagnosis | ICD-10-CM |
| Z85.44  | Personal history of malignant neoplasm of other female genital organs                        | Diagnosis | ICD-10-CM |
| Z85.45  | Personal history of malignant neoplasm of unspecified male genital organ                     | Diagnosis | ICD-10-CM |
| Z85.46  | Personal history of malignant neoplasm of prostate                                           | Diagnosis | ICD-10-CM |
| Z85.47  | Personal history of malignant neoplasm of testis                                             | Diagnosis | ICD-10-CM |
| Z85.48  | Personal history of malignant neoplasm of epididymis                                         | Diagnosis | ICD-10-CM |
| Z85.49  | Personal history of malignant neoplasm of other male genital organs                          | Diagnosis | ICD-10-CM |
| Z85.5   | Personal history of malignant neoplasm of urinary tract                                      | Diagnosis | ICD-10-CM |
| Z85.50  | Personal history of malignant neoplasm of unspecified urinary tract organ                    | Diagnosis | ICD-10-CM |
| Z85.51  | Personal history of malignant neoplasm of bladder                                            | Diagnosis | ICD-10-CM |
| Z85.53  | Personal history of malignant neoplasm of renal pelvis                                       | Diagnosis | ICD-10-CM |
| Z85.54  | Personal history of malignant neoplasm of ureter                                             | Diagnosis | ICD-10-CM |
| Z85.59  | Personal history of malignant neoplasm of other urinary tract organ                          | Diagnosis | ICD-10-CM |
| Z85.6   | Personal history of leukemia                                                                 | Diagnosis | ICD-10-CM |
| Z85.7   | Personal history of other malignant neoplasms of lymphoid, hematopoietic and related tissues | Diagnosis | ICD-10-CM |
| Z85.71  | Personal history of Hodgkin lymphoma                                                         | Diagnosis | ICD-10-CM |
| Z85.72  | Personal history of non-Hodgkin lymphomas                                                    | Diagnosis | ICD-10-CM |
| Z85.79  | Personal history of other malignant neoplasms of lymphoid, hematopoietic and related tissues | Diagnosis | ICD-10-CM |
| Z85.8   | Personal history of malignant neoplasms of other organs and systems                          | Diagnosis | ICD-10-CM |
| Z85.81  | Personal history of malignant neoplasm of lip, oral cavity, and pharynx                      | Diagnosis | ICD-10-CM |
| Z85.810 | Personal history of malignant neoplasm of tongue                                             | Diagnosis | ICD-10-CM |
| Z85.818 | Personal history of malignant neoplasm of other sites of lip, oral cavity, and pharynx       | Diagnosis | ICD-10-CM |
| Z85.819 | Personal history of malignant neoplasm of unspecified site of lip, oral cavity, and pharynx  | Diagnosis | ICD-10-CM |
| Z85.82  | Personal history of malignant neoplasm of skin                                               | Diagnosis | ICD-10-CM |
| Z85.820 | Personal history of malignant melanoma of skin                                               | Diagnosis | ICD-10-CM |
| Z85.828 | Personal history of other malignant neoplasm of skin                                         | Diagnosis | ICD-10-CM |
| Z85.83  | Personal history of malignant neoplasm of bone and soft tissue                               | Diagnosis | ICD-10-CM |
| Z85.830 | Personal history of malignant neoplasm of bone                                               | Diagnosis | ICD-10-CM |
| Z85.831 | Personal history of malignant neoplasm of soft tissue                                        | Diagnosis | ICD-10-CM |

**Appendix H. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Censoring Criteria in this Request**

| Code    | Description                                                             | Code      |           |
|---------|-------------------------------------------------------------------------|-----------|-----------|
|         |                                                                         | Category  | Code Type |
| Z85.84  | Personal history of malignant neoplasm of eye and nervous tissue        | Diagnosis | ICD-10-CM |
| Z85.840 | Personal history of malignant neoplasm of eye                           | Diagnosis | ICD-10-CM |
| Z85.841 | Personal history of malignant neoplasm of brain                         | Diagnosis | ICD-10-CM |
| Z85.848 | Personal history of malignant neoplasm of other parts of nervous tissue | Diagnosis | ICD-10-CM |
| Z85.85  | Personal history of malignant neoplasm of endocrine glands              | Diagnosis | ICD-10-CM |
| Z85.850 | Personal history of malignant neoplasm of thyroid                       | Diagnosis | ICD-10-CM |
| Z85.858 | Personal history of malignant neoplasm of other endocrine glands        | Diagnosis | ICD-10-CM |
| Z85.89  | Personal history of malignant neoplasm of other organs and systems      | Diagnosis | ICD-10-CM |
| Z85.9   | Personal history of malignant neoplasm, unspecified                     | Diagnosis | ICD-10-CM |
| Z92.21  | Personal history of antineoplastic chemotherapy                         | Diagnosis | ICD-10-CM |

**Note:** National Drug Codes (NDCs) for products in Appendix G are also searched for in the Procedure table to define censoring criteria.

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                          | Brand Name                     |
|-------------------------------------------------------|--------------------------------|
| <b>Alpha Glucosidase Inhibitors</b>                   |                                |
| acarbose                                              | acarbose                       |
| acarbose                                              | precose                        |
| miglitol                                              | glyset                         |
| miglitol                                              | miglitol                       |
| <b>Angiotensin Converting Enzyme (ACE) Inhibitors</b> |                                |
| amlodipine besylate/benazepril HCl                    | amlodipine-benazepril          |
| amlodipine besylate/benazepril HCl                    | lotrel                         |
| benazepril HCl                                        | benazepril                     |
| benazepril HCl                                        | lotensin                       |
| benazepril HCl/hydrochlorothiazide                    | benazepril-hydrochlorothiazide |
| benazepril HCl/hydrochlorothiazide                    | lotensin HCT                   |
| captopril                                             | captopril                      |
| captopril/hydrochlorothiazide                         | captopril-hydrochlorothiazide  |
| enalapril maleate                                     | enalapril maleate              |
| enalapril maleate                                     | epaned                         |
| enalapril maleate                                     | vasotec                        |
| enalapril maleate/hydrochlorothiazide                 | enalapril-hydrochlorothiazide  |
| enalapril maleate/hydrochlorothiazide                 | vaseretic                      |
| enalaprilat dihydrate                                 | enalaprilat                    |
| fosinopril sodium                                     | fosinopril                     |
| fosinopril sodium/hydrochlorothiazide                 | fosinopril-hydrochlorothiazide |
| lisinopril                                            | lisinopril                     |
| lisinopril                                            | prinivil                       |
| lisinopril                                            | qbrelis                        |
| lisinopril                                            | zestril                        |
| lisinopril/hydrochlorothiazide                        | lisinopril-hydrochlorothiazide |
| lisinopril/hydrochlorothiazide                        | prinzipide                     |
| lisinopril/hydrochlorothiazide                        | zestoretic                     |
| moexipril HCl                                         | moexipril                      |
| moexipril HCl                                         | univasc                        |
| moexipril HCl/hydrochlorothiazide                     | moexipril-hydrochlorothiazide  |
| moexipril HCl/hydrochlorothiazide                     | uniretic                       |
| perindopril arginine/amlodipine besylate              | prestalia                      |
| perindopril erbumine                                  | aceon                          |
| perindopril erbumine                                  | perindopril erbumine           |
| quinapril HCl                                         | accupril                       |
| quinapril HCl                                         | quinapril                      |
| quinapril HCl/hydrochlorothiazide                     | accuretic                      |
| quinapril HCl/hydrochlorothiazide                     | quinapril-hydrochlorothiazide  |
| ramipril                                              | altace                         |
| ramipril                                              | ramipril                       |
| trandolapril                                          | mavik                          |
| trandolapril                                          | trandolapril                   |
| trandolapril/verapamil HCl                            | tarka                          |
| trandolapril/verapamil HCl                            | trandolapril-verapamil         |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| Angiotensin Receptor Blockers (ARBs)                         |                                |
| amlodipine besylate/olmesartan medoxomil                     | amlodipine-olmesartan          |
| amlodipine besylate/olmesartan medoxomil                     | azor                           |
| amlodipine besylate/valsartan                                | amlodipine-valsartan           |
| amlodipine besylate/valsartan                                | exforge                        |
| amlodipine besylate/valsartan/hydrochlorothiazide            | amlodipine-valsartan-hcthiazid |
| amlodipine besylate/valsartan/hydrochlorothiazide            | exforge HCT                    |
| azilsartan medoxomil                                         | edarbi                         |
| azilsartan medoxomil/chlorthalidone                          | edarbyclor                     |
| candesartan cilexetil                                        | atacand                        |
| candesartan cilexetil                                        | candesartan                    |
| candesartan cilexetil/hydrochlorothiazide                    | atacand HCT                    |
| candesartan cilexetil/hydrochlorothiazide                    | candesartan-hydrochlorothiazid |
| eprosartan mesylate                                          | eprosartan                     |
| eprosartan mesylate                                          | teveten                        |
| eprosartan mesylate/hydrochlorothiazide                      | teveten HCT                    |
| irbesartan                                                   | avapro                         |
| irbesartan                                                   | irbesartan                     |
| irbesartan/hydrochlorothiazide                               | avalide                        |
| irbesartan/hydrochlorothiazide                               | irbesartan-hydrochlorothiazide |
| losartan potassium                                           | arbli                          |
| losartan potassium                                           | cozaar                         |
| losartan potassium                                           | losartan                       |
| losartan potassium/hydrochlorothiazide                       | hyzaar                         |
| losartan potassium/hydrochlorothiazide                       | losartan-hydrochlorothiazide   |
| nebivolol HCl/valsartan                                      | byvalson                       |
| olmesartan medoxomil                                         | benicar                        |
| olmesartan medoxomil                                         | olmesartan                     |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | olmesartan-amlodipin-hcthiazid |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | tribenzor                      |
| olmesartan medoxomil/hydrochlorothiazide                     | benicar HCT                    |
| olmesartan medoxomil/hydrochlorothiazide                     | olmesartan-hydrochlorothiazide |
| sacubitril/valsartan                                         | entresto                       |
| sacubitril/valsartan                                         | entresto sprinkle              |
| sacubitril/valsartan                                         | sacubitril-valsartan           |
| telmisartan                                                  | micardis                       |
| telmisartan                                                  | telmisartan                    |
| telmisartan/amlodipine besylate                              | telmisartan-amlodipine         |
| telmisartan/amlodipine besylate                              | twynsta                        |
| telmisartan/hydrochlorothiazide                              | micardis HCT                   |
| telmisartan/hydrochlorothiazide                              | telmisartan-hydrochlorothiazid |
| valsartan                                                    | diovan                         |
| valsartan                                                    | valsartan                      |
| valsartan/hydrochlorothiazide                                | diovan HCT                     |
| valsartan/hydrochlorothiazide                                | valsartan-hydrochlorothiazide  |



**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                                | Brand Name                     |
|-----------------------------------------------------------------------------|--------------------------------|
| Aspirin, Acetaminophen, Other Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) |                                |
| Chlorpheniramine Maleate/Codeine Phosphate/Acetaminophen                    | cotabflu                       |
| acetaminophen                                                               | 7T gummy ES                    |
| acetaminophen                                                               | 8 hour pain reliever           |
| acetaminophen                                                               | 8HR muscle aches-pain          |
| acetaminophen                                                               | NON-ASPIRIN 8 HOUR             |
| acetaminophen                                                               | acephen                        |
| acetaminophen                                                               | acetadink                      |
| acetaminophen                                                               | acetaminophen                  |
| acetaminophen                                                               | acetaminophen extra strength   |
| acetaminophen                                                               | acetaminophen pain relief      |
| acetaminophen                                                               | aminofen                       |
| acetaminophen                                                               | aphen                          |
| acetaminophen                                                               | arthritis pain relief (acetam) |
| acetaminophen                                                               | arthritis pain reliever        |
| acetaminophen                                                               | athenol                        |
| acetaminophen                                                               | betatemp                       |
| acetaminophen                                                               | child fever reducer-pain relvr |
| acetaminophen                                                               | child non-aspirin quick melts  |
| acetaminophen                                                               | child pain rel-fever reducer   |
| acetaminophen                                                               | child's accudial acetaminophen |
| acetaminophen                                                               | children's acetaminophen       |
| acetaminophen                                                               | children's aurophen pain-fever |
| acetaminophen                                                               | children's easy-melts          |
| acetaminophen                                                               | children's fever reducing      |
| acetaminophen                                                               | children's mapap               |
| acetaminophen                                                               | children's medi-tabs           |
| acetaminophen                                                               | children's non-aspirin         |
| acetaminophen                                                               | children's pain relief         |
| acetaminophen                                                               | children's pain reliever       |
| acetaminophen                                                               | children's pain-fever relief   |
| acetaminophen                                                               | children's q-PAP               |
| acetaminophen                                                               | children's tactinal            |
| acetaminophen                                                               | children's triaminic fever     |
| acetaminophen                                                               | children's tylenol             |
| acetaminophen                                                               | children's tylenol meltaways   |
| acetaminophen                                                               | ed-APAP                        |
| acetaminophen                                                               | ex-strength medi-tabs          |
| acetaminophen                                                               | fever reducer                  |
| acetaminophen                                                               | feverall                       |
| acetaminophen                                                               | genapap                        |
| acetaminophen                                                               | infant acetaminophen           |
| acetaminophen                                                               | infant fever reducer-pain relf |
| acetaminophen                                                               | infant pain reliever           |
| acetaminophen                                                               | infant's acetaminophen         |
| acetaminophen                                                               | infant's non-aspirin           |
| acetaminophen                                                               | infant's pain relief           |
| acetaminophen                                                               | infant's pain reliever         |



**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name  | Brand Name                     |
|---------------|--------------------------------|
| acetaminophen | infant's tylenol               |
| acetaminophen | infantaire                     |
| acetaminophen | infants mapap                  |
| acetaminophen | infants silapap                |
| acetaminophen | infants' pain and fever        |
| acetaminophen | infants' pain relief           |
| acetaminophen | infants' triaminic fever       |
| acetaminophen | jr str non-aspirin quick melts |
| acetaminophen | jr. acetaminophen              |
| acetaminophen | jr. str non-aspirin pain       |
| acetaminophen | jr. strength pain reliever     |
| acetaminophen | jr. tylenol meltaways          |
| acetaminophen | junior mapap                   |
| acetaminophen | kindarmed infants pain-fever   |
| acetaminophen | kindarmed kids pain-fever      |
| acetaminophen | little remedies fever and pain |
| acetaminophen | m-PAP                          |
| acetaminophen | mapap (acetaminophen)          |
| acetaminophen | mapap arthritis pain           |
| acetaminophen | mapap extra strength           |
| acetaminophen | mapap infants'                 |
| acetaminophen | maxrelief junior               |
| acetaminophen | medi-tabs                      |
| acetaminophen | non-aspirin                    |
| acetaminophen | non-aspirin child              |
| acetaminophen | non-aspirin children's         |
| acetaminophen | non-aspirin childrens          |
| acetaminophen | non-aspirin extra strength     |
| acetaminophen | non-aspirin jr strength        |
| acetaminophen | non-aspirin pain relief        |
| acetaminophen | non-aspirin pain reliever      |
| acetaminophen | nortemp                        |
| acetaminophen | ofirmev                        |
| acetaminophen | pain and fever                 |
| acetaminophen | pain relief (acetaminophen)    |
| acetaminophen | pain relief 8HR                |
| acetaminophen | pain relief ES (acetaminophen) |
| acetaminophen | pain relief adult              |
| acetaminophen | pain reliever (acetaminophen)  |
| acetaminophen | pain reliever ES(acetaminophn) |
| acetaminophen | pain reliever jr strength      |
| acetaminophen | pediacare fever reducer        |
| acetaminophen | pharbetol                      |
| acetaminophen | q-PAP                          |
| acetaminophen | q-PAP extra strength           |
| acetaminophen | redutemp                       |
| acetaminophen | shake that ache                |
| acetaminophen | silapap                        |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                    | Brand Name                      |
|-------------------------------------------------|---------------------------------|
| acetaminophen                                   | tactinal                        |
| acetaminophen                                   | tactinal extra strength         |
| acetaminophen                                   | triaminic fever reducer         |
| acetaminophen                                   | tylenol                         |
| acetaminophen                                   | tylenol 8 hour                  |
| acetaminophen                                   | tylenol arthritis               |
| acetaminophen                                   | tylenol arthritis pain          |
| acetaminophen                                   | tylenol ex str arthritis pain   |
| acetaminophen                                   | tylenol ex str rapid release    |
| acetaminophen                                   | tylenol extra strength          |
| acetaminophen                                   | tylenol sore throat             |
| acetaminophen with codeine phosphate            | acetaminophen-codeine           |
| acetaminophen with codeine phosphate            | capital with codeine            |
| acetaminophen with codeine phosphate            | cocet                           |
| acetaminophen with codeine phosphate            | cocet plus                      |
| acetaminophen with codeine phosphate            | tylenol-codeine #3              |
| acetaminophen with codeine phosphate            | tylenol-codeine #4              |
| acetaminophen/cafeine                           | excedrin quicktabs              |
| acetaminophen/cafeine                           | excedrin tension headache       |
| acetaminophen/cafeine                           | exstr pain-reliever tension HA  |
| acetaminophen/cafeine                           | tension headache                |
| acetaminophen/cafeine                           | tension headache pain reliever  |
| acetaminophen/cafeine                           | tension headache relief         |
| acetaminophen/cafeine/dihydrocodeine bitartrate | acetaminophen-caff-dihydrocod   |
| acetaminophen/cafeine/dihydrocodeine bitartrate | dvorah                          |
| acetaminophen/cafeine/dihydrocodeine bitartrate | panlor(acetam-caff-dihydrocod)  |
| acetaminophen/cafeine/dihydrocodeine bitartrate | trezix                          |
| acetaminophen/chlorpheniramine maleate          | COLD and FLU BP                 |
| acetaminophen/chlorpheniramine maleate          | cold and flu HBP                |
| acetaminophen/chlorpheniramine maleate          | coricidin HBP cold and flu      |
| acetaminophen/dexbrompheniramine maleate        | actidogesic                     |
| acetaminophen/dexbrompheniramine maleate        | actidogesic-DF                  |
| acetaminophen/dexbrompheniramine maleate        | dologen                         |
| acetaminophen/dexbrompheniramine maleate        | dologen 325                     |
| acetaminophen/dexbrompheniramine maleate        | dologesic (w-dexbromphenirmn)   |
| acetaminophen/dexbrompheniramine maleate        | dologesic-DF                    |
| acetaminophen/dexbrompheniramine maleate        | g-dologen                       |
| acetaminophen/dextromethorphan HBr              | child cough and sore throat     |
| acetaminophen/dextromethorphan HBr              | child delysym cough-sore throat |
| acetaminophen/dextromethorphan HBr              | child mucinex fever-throat-cgh  |
| acetaminophen/dextromethorphan HBr              | child triaminic cough-sore thr  |
| acetaminophen/dextromethorphan HBr              | child's tylenol plus cough,ST   |
| acetaminophen/dextromethorphan HBr              | coricidin HBP max cld(acet-DM)  |
| acetaminophen/dextromethorphan HBr              | cough and sore throat           |
| acetaminophen/dextromethorphan HBr              | daytime cold and cough          |
| acetaminophen/dextromethorphan HBr              | delysym cough-sore throat       |
| acetaminophen/dextromethorphan HBr              | pain relief cold and cough      |
| acetaminophen/dextromethorphan HBr              | robitussin cough-sore throat    |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                | Brand Name                      |
|---------------------------------------------|---------------------------------|
| acetaminophen/dextromethorphan HBr          | robitussin honey cgh-flu-sore   |
| acetaminophen/dextromethorphan HBr          | theraflu flu relief daytime     |
| acetaminophen/dextromethorphan HBr          | theraflu svr cold rlf day (DM)  |
| acetaminophen/dextromethorphan HBr          | triacating cough andsore throat |
| acetaminophen/dextromethorphan HBr          | triaminic cough-sore throat     |
| acetaminophen/dextromethorphan HBr          | triaminic softchews             |
| acetaminophen/diphenhydramine HCl           | aceta-gesic                     |
| acetaminophen/diphenhydramine HCl           | acetadryl                       |
| acetaminophen/diphenhydramine HCl           | acetaminophen PM                |
| acetaminophen/diphenhydramine HCl           | acetaminophen PM extra str      |
| acetaminophen/diphenhydramine HCl           | allergy severe                  |
| acetaminophen/diphenhydramine HCl           | cold relief                     |
| acetaminophen/diphenhydramine HCl           | diphenhydramine-acetaminophen   |
| acetaminophen/diphenhydramine HCl           | eazze the pain                  |
| acetaminophen/diphenhydramine HCl           | ex-strength medi-tabs PM        |
| acetaminophen/diphenhydramine HCl           | headache PM                     |
| acetaminophen/diphenhydramine HCl           | mapap PM                        |
| acetaminophen/diphenhydramine HCl           | medi-tabs PM                    |
| acetaminophen/diphenhydramine HCl           | night time pain medicine        |
| acetaminophen/diphenhydramine HCl           | nighttime pain plus sleep       |
| acetaminophen/diphenhydramine HCl           | non-aspirin PM                  |
| acetaminophen/diphenhydramine HCl           | non-aspirin nighttime           |
| acetaminophen/diphenhydramine HCl           | non-aspirin pain relief PM      |
| acetaminophen/diphenhydramine HCl           | pain and sleep                  |
| acetaminophen/diphenhydramine HCl           | pain relief PM                  |
| acetaminophen/diphenhydramine HCl           | pain relief PM rapid release    |
| acetaminophen/diphenhydramine HCl           | pain reliever PM                |
| acetaminophen/diphenhydramine HCl           | pain reliever PM ex st          |
| acetaminophen/diphenhydramine HCl           | pain reliever PM ex-strength    |
| acetaminophen/diphenhydramine HCl           | percogesic                      |
| acetaminophen/diphenhydramine HCl           | percogesic extra strength       |
| acetaminophen/diphenhydramine HCl           | severe allergy                  |
| acetaminophen/diphenhydramine HCl           | theraflu severe cold relief nt  |
| acetaminophen/diphenhydramine HCl           | tylenol PM extra strength       |
| acetaminophen/diphenhydramine HCl           | tylenol severe allergy          |
| acetaminophen/diphenhydramine HCl           | unisom PM pain                  |
| acetaminophen/diphenhydramine HCl           | wal-nadol PM                    |
| acetaminophen/diphenhydramine citrate       | PM pain reliever                |
| acetaminophen/diphenhydramine citrate       | excedrin PM                     |
| acetaminophen/diphenhydramine citrate       | goody's PM                      |
| acetaminophen/diphenhydramine citrate       | headache relief PM              |
| acetaminophen/diphenhydramine citrate       | midol PM                        |
| acetaminophen/diphenhydramine citrate       | pain medicine p.m.              |
| acetaminophen/guaifenesin                   | chest congestion                |
| acetaminophen/guaifenesin                   | comtrex deep chest cold         |
| acetaminophen/guaifenesin                   | mucinex cold-flu HBP            |
| acetaminophen/magnesium salicylate/pamabrom | pamprin (with mag salicylate)   |
| acetaminophen/pamabrom                      | cramp tabs                      |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                           | Brand Name                     |
|--------------------------------------------------------|--------------------------------|
| acetaminophen/pamabrom                                 | midol                          |
| acetaminophen/pamabrom                                 | women's menstrual relief       |
| acetaminophen/phenyltoloxamine citrate                 | aceta-gesic (with phenyltolox) |
| acetaminophen/phenyltoloxamine citrate                 | contragesic                    |
| acetaminophen/phenyltoloxamine citrate                 | dologesic (w-phenyltoloxamine) |
| acetaminophen/phenyltoloxamine citrate                 | relagesic                      |
| acetaminophen/phenyltoloxamine citrate                 | rhinoflex-650                  |
| acetaminophen/phenyltoloxamine citrate                 | tension headache reliever      |
| acetaminophen/phenyltoloxamine citrate                 | zflex                          |
| acetaminophen/phenyltoloxamine citrate                 | zgesic                         |
| acetaminophen/pyrilamine maleate                       | histaflex                      |
| acetaminophen/pyrilamine maleate/cafeine               | menstrual complete             |
| acetaminophen/pyrilamine maleate/cafeine               | menstrual relief               |
| acetaminophen/pyrilamine maleate/cafeine               | midol complete                 |
| acetaminophen/pyrilamine maleate/cafeine               | midol max st menstrual         |
| acetaminophen/pyrilamine maleate/pamabrom              | PMS maximum strength           |
| acetaminophen/pyrilamine maleate/pamabrom              | menstrual pain relief          |
| acetaminophen/pyrilamine maleate/pamabrom              | menstrual relief(pamabr-pyril) |
| acetaminophen/pyrilamine maleate/pamabrom              | multi-symptom PMS              |
| acetaminophen/pyrilamine maleate/pamabrom              | pamprin multi-symptom          |
| acetaminophen/pyrilamine maleate/pamabrom              | pre-menstrual relief           |
| acetaminophen/pyrilamine maleate/pamabrom              | premsyn PMS                    |
| acetaminophen/simethicone/sod chlor/zinc/ginger/fennel | little remedies new baby       |
| amlodipine besylate/celecoxib                          | consensi                       |
| aspirin                                                | adult aspirin regimen          |
| aspirin                                                | adult low dose aspirin         |
| aspirin                                                | asperdrink                     |
| aspirin                                                | aspir-81                       |
| aspirin                                                | aspir-low                      |
| aspirin                                                | aspir-trin                     |
| aspirin                                                | aspirin                        |
| aspirin                                                | aspirin childrens              |
| aspirin                                                | aspirin low-strength           |
| aspirin                                                | bayer advanced                 |
| aspirin                                                | bayer aspirin                  |
| aspirin                                                | bayer chewable aspirin         |
| aspirin                                                | bayer low dose aspirin         |
| aspirin                                                | child aspirin                  |
| aspirin                                                | children's aspirin             |
| aspirin                                                | durlaza                        |
| aspirin                                                | e.c. prin                      |
| aspirin                                                | ecotrin                        |
| aspirin                                                | ecotrin low strength           |
| aspirin                                                | enteric coated aspirin         |
| aspirin                                                | extra strength bayer           |
| aspirin                                                | halfprin                       |
| aspirin                                                | lite coat aspirin              |
| aspirin                                                | lo-dose aspirin                |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                  | Brand Name                     |
|-----------------------------------------------|--------------------------------|
| aspirin                                       | miniprin                       |
| aspirin                                       | st joseph aspirin              |
| aspirin                                       | st. joseph aspirin             |
| aspirin                                       | stanback headache powder       |
| aspirin                                       | vazalore                       |
| aspirin/acetaminophen                         | goody's BODY PAIN              |
| aspirin/acetaminophen                         | goody's back and body pain     |
| aspirin/acetaminophen/caffeine                | BC max strength                |
| aspirin/acetaminophen/caffeine                | added strength headache relief |
| aspirin/acetaminophen/caffeine                | added strength pain reliever   |
| aspirin/acetaminophen/caffeine                | excedrin extra strength        |
| aspirin/acetaminophen/caffeine                | excedrin menstrual complete    |
| aspirin/acetaminophen/caffeine                | excedrin migraine              |
| aspirin/acetaminophen/caffeine                | extra pain relief              |
| aspirin/acetaminophen/caffeine                | extraprin                      |
| aspirin/acetaminophen/caffeine                | goody's extra strength         |
| aspirin/acetaminophen/caffeine                | goody's migraine relief        |
| aspirin/acetaminophen/caffeine                | headache formula               |
| aspirin/acetaminophen/caffeine                | headache formula added str     |
| aspirin/acetaminophen/caffeine                | headache relief (ASA-acet-caf) |
| aspirin/acetaminophen/caffeine                | migraine formula               |
| aspirin/acetaminophen/caffeine                | migraine pain reliever         |
| aspirin/acetaminophen/caffeine                | migraine relief                |
| aspirin/acetaminophen/caffeine                | pain relief (acetamin-asp-caf) |
| aspirin/acetaminophen/caffeine                | pain reliever (acetam-aspirin) |
| aspirin/acetaminophen/caffeine                | pain reliever added strength   |
| aspirin/acetaminophen/caffeine                | pain reliever plus             |
| aspirin/acetaminophen/caffeine                | pain-off                       |
| aspirin/acetaminophen/caffeine                | pamprin max                    |
| aspirin/acetaminophen/caffeine                | super pain relief              |
| aspirin/acetaminophen/caffeine                | vanquish                       |
| aspirin/acetaminophen/caffeine/potassium      | goody's headache powder        |
| aspirin/acetaminophen/calcium carbonate       | excedrin back and body         |
| aspirin/acetaminophen/diphenhydramine citrate | pain relief PM (w-aspirin)     |
| aspirin/caffeine                              | BC arthritis                   |
| aspirin/caffeine                              | BC pain relief                 |
| aspirin/caffeine                              | anacin                         |
| aspirin/caffeine                              | anacin maximum strength        |
| aspirin/caffeine                              | analgesic (aspirin/caffeine)   |
| aspirin/caffeine                              | aspirin-caffeine               |
| aspirin/caffeine                              | back and body pain reliever    |
| aspirin/caffeine                              | bayer aspirin (with caffeine)  |
| aspirin/caffeine                              | bayer back and body            |
| aspirin/caffeine                              | goody's hangover               |
| aspirin/caffeine                              | pain relief (aspirin-caffeine) |
| aspirin/caffeine                              | stanback                       |
| aspirin/caffeine/dihydrocodeine bitartrate    | aspirin-caffeine-dihydrocodein |
| aspirin/caffeine/dihydrocodeine bitartrate    | synalgos-DC                    |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                           | Brand Name                     |
|--------------------------------------------------------|--------------------------------|
| aspirin/calcium carbonate                              | women's aspirin with calcium   |
| aspirin/calcium carbonate/magnesium                    | aspirin,buffd-calcium carb-mag |
| aspirin/calcium carbonate/magnesium                    | bufferin                       |
| aspirin/calcium carbonate/magnesium                    | bufferin extra strength        |
| aspirin/calcium carbonate/magnesium                    | tri-buffered aspirin           |
| aspirin/calcium carbonate/magnesium/aluminum hydroxide | ascriptin                      |
| aspirin/calcium carbonate/magnesium/aluminum hydroxide | bayer plus extra strength      |
| aspirin/diphenhydramine citrate                        | bayer PM                       |
| aspirin/dipyridamole                                   | aggrenox                       |
| aspirin/dipyridamole                                   | aspirin-dipyridamole           |
| aspirin/omeprazole                                     | aspirin-omeprazole             |
| aspirin/omeprazole                                     | yosprala                       |
| aspirin/salicylamide/acetaminophen/caffeine            | levacet                        |
| aspirin/salicylamide/acetaminophen/caffeine            | pain relief(with salicylamide) |
| aspirin/salicylamide/caffeine                          | BC headache powder             |
| aspirin/sodium bicarbonate/citric acid                 | alka-seltzer                   |
| aspirin/sodium bicarbonate/citric acid                 | alka-seltzer extra strength    |
| aspirin/sodium bicarbonate/citric acid                 | alka-seltzer original          |
| aspirin/sodium bicarbonate/citric acid                 | antacid and pain relief        |
| aspirin/sodium bicarbonate/citric acid                 | efferves pain relief antacid   |
| aspirin/sodium bicarbonate/citric acid                 | effervescent                   |
| aspirin/sodium bicarbonate/citric acid                 | effervescent antacid           |
| aspirin/sodium bicarbonate/citric acid                 | effervescent pain relief       |
| aspirin/sodium bicarbonate/citric acid                 | effervescent pain reliever     |
| aspirin/sodium bicarbonate/citric acid                 | medi-seltzer                   |
| benzhydrocodone HCl/acetaminophen                      | apadaz                         |
| benzhydrocodone HCl/acetaminophen                      | benzhydrocodone-acetaminophen  |
| bromfenac sodium                                       | bromfenac                      |
| brompheniramine maleate/acetaminophen                  | staflex (bromphenira-acetamin) |
| bupivacaine/meloxicam                                  | zynrelef                       |
| butalbital/acetaminophen                               | allzital                       |
| butalbital/acetaminophen                               | bupap                          |
| butalbital/acetaminophen                               | butalbital-acetaminophen       |
| butalbital/acetaminophen                               | cephadyn                       |
| butalbital/acetaminophen                               | marten-tab                     |
| butalbital/acetaminophen                               | orbivan CF                     |
| butalbital/acetaminophen                               | phrenilin forte                |
| butalbital/acetaminophen                               | promacet                       |
| butalbital/acetaminophen                               | sedapap                        |
| butalbital/acetaminophen                               | tencon                         |
| butalbital/acetaminophen/caffeine                      | alagesic LQ                    |
| butalbital/acetaminophen/caffeine                      | butalbital-acetaminophen-caff  |
| butalbital/acetaminophen/caffeine                      | capacet                        |
| butalbital/acetaminophen/caffeine                      | dolgit plus                    |
| butalbital/acetaminophen/caffeine                      | esgic                          |
| butalbital/acetaminophen/caffeine                      | esgic-plus                     |
| butalbital/acetaminophen/caffeine                      | fioricet                       |
| butalbital/acetaminophen/caffeine                      | margesic                       |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                      | Brand Name                     |
|-------------------------------------------------------------------|--------------------------------|
| butalbital/acetaminophen/caffeine                                 | orbivan                        |
| butalbital/acetaminophen/caffeine                                 | phrenilin forte(with caffeine) |
| butalbital/acetaminophen/caffeine                                 | repan                          |
| butalbital/acetaminophen/caffeine                                 | vanatol LQ                     |
| butalbital/acetaminophen/caffeine                                 | vanatol s                      |
| butalbital/acetaminophen/caffeine                                 | vtol LQ                        |
| butalbital/acetaminophen/caffeine                                 | zebutal                        |
| butalbital/acetaminophen/caffeine/codeine phosphate               | butalbital-acetaminop-caf-cod  |
| butalbital/acetaminophen/caffeine/codeine phosphate               | fioricet with codeine          |
| butalbital/aspirin/caffeine                                       | butalbital compound            |
| butalbital/aspirin/caffeine                                       | butalbital-aspirin-caffeine    |
| butalbital/aspirin/caffeine                                       | fiorinal                       |
| carisoprodol/aspirin                                              | carisoprodol-aspirin           |
| carisoprodol/aspirin/codeine phosphate                            | carisoprodol compound-codeine  |
| carisoprodol/aspirin/codeine phosphate                            | carisoprodol-aspirin-codeine   |
| celecoxib                                                         | celebrex                       |
| celecoxib                                                         | celecoxib                      |
| celecoxib                                                         | elyxyb                         |
| celecoxib/capsaicin/menthol                                       | capxib                         |
| celecoxib/capsaicin/methyl salicylate/menthol                     | nudroxipak                     |
| celecoxib/lidocaine/menthol                                       | lidoxib                        |
| chlorpheniramine/phenyleph/dextromethorphan/acetaminophen/guaifin | cold-flu m-symptom day-night   |
| chlorpheniramine/phenyleph/dextromethorphan/acetaminophen/guaifin | tylenol cold-flu severe day-nt |
| chlorpheniramine mal/phenylephrine/d-methorphan Hb/aspirin        | alka-seltzer plus c/c(PE,DM)   |
| chlorpheniramine maleate/phenylephrine HCl/ibuprofen              | advil allergy-congestion rlf   |
| chlorpheniramine maleate/phenylephrine HCl/ibuprofen              | advil multi-symptom cold-flu   |
| chlorpheniramine maleate/phenylephrine bitartrate/aspirin         | alka-seltzer plus cold (PE)    |
| chlorpheniramine maleate/phenylephrine bitartrate/aspirin         | alka-seltzer severe cold       |
| chlorpheniramine maleate/phenylephrine bitartrate/aspirin         | cold relief                    |
| chlorpheniramine maleate/phenylephrine bitartrate/aspirin         | cold relief plus               |
| chlorpheniramine maleate/pseudoephedrine HCl/ibuprofen            | advil allergy sinus            |
| chlorpheniramine/dextromethorphan/acetaminophen/guaifenesin       | coricidin HBP day-night        |
| codeine phosphate/butalbital/aspirin/caffeine                     | ascomp with codeine            |
| codeine phosphate/butalbital/aspirin/caffeine                     | butalbital compound w/codeine  |
| codeine phosphate/butalbital/aspirin/caffeine                     | butalbital compound-codeine    |
| codeine phosphate/butalbital/aspirin/caffeine                     | codeine-butalbital-ASA-caff    |
| codeine phosphate/butalbital/aspirin/caffeine                     | fiorinal-codeine #3            |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | child plus cough and runnynose |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | child's tylenol pluscough,rnos |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | children's cough and runnynose |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | children's mapap cough-sinus   |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | coricidin HBP flu              |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | flu BP                         |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | flu HBP                        |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | flu relief BP                  |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | maximum strength flu           |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | triaminic                      |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate       | triaminic flu-cough-fever      |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                | Brand Name                     |
|-------------------------------------------------------------|--------------------------------|
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate | vicks 44 custom care           |
| dextromethorphan HBr/acetaminophen/chlorpheniramine maleate | vicks nyquil cold/flu (cpm)    |
| dextromethorphan HBr/acetaminophen/diphenhydramine HCl      | diabetic tussin night time     |
| dextromethorphan HBr/acetaminophen/doxylamine               | all-nite cold-flu              |
| dextromethorphan HBr/acetaminophen/doxylamine               | cold-flu relief                |
| dextromethorphan HBr/acetaminophen/doxylamine               | contac cold-flu night          |
| dextromethorphan HBr/acetaminophen/doxylamine               | coricidin HBP cold-multi sympt |
| dextromethorphan HBr/acetaminophen/doxylamine               | coricidin HBP max cold-flu nt  |
| dextromethorphan HBr/acetaminophen/doxylamine               | cough and sore throat          |
| dextromethorphan HBr/acetaminophen/doxylamine               | cough-sore throat night        |
| dextromethorphan HBr/acetaminophen/doxylamine               | delsym nighttime multi-symptom |
| dextromethorphan HBr/acetaminophen/doxylamine               | night time                     |
| dextromethorphan HBr/acetaminophen/doxylamine               | night time (doxy-DM-acetam)    |
| dextromethorphan HBr/acetaminophen/doxylamine               | night time cold                |
| dextromethorphan HBr/acetaminophen/doxylamine               | night time cold and flu relief |
| dextromethorphan HBr/acetaminophen/doxylamine               | night time cold-flu            |
| dextromethorphan HBr/acetaminophen/doxylamine               | night time cold-flu relief     |
| dextromethorphan HBr/acetaminophen/doxylamine               | night time cough-sore throat   |
| dextromethorphan HBr/acetaminophen/doxylamine               | nighttime cold-flu             |
| dextromethorphan HBr/acetaminophen/doxylamine               | nighttime cold-flu relief      |
| dextromethorphan HBr/acetaminophen/doxylamine               | nite time cold-flu             |
| dextromethorphan HBr/acetaminophen/doxylamine               | nite time cold-flu formula     |
| dextromethorphan HBr/acetaminophen/doxylamine               | nite time cold-flu relief      |
| dextromethorphan HBr/acetaminophen/doxylamine               | nite-time                      |
| dextromethorphan HBr/acetaminophen/doxylamine               | nite-time cold-flu             |
| dextromethorphan HBr/acetaminophen/doxylamine               | nitetime multi-symptom         |
| dextromethorphan HBr/acetaminophen/doxylamine               | robitussin cold-flu night      |
| dextromethorphan HBr/acetaminophen/doxylamine               | vicks nature fusion cold-flu   |
| dextromethorphan HBr/acetaminophen/doxylamine               | vicks nyquil cold and flu      |
| dextromethorphan HBr/acetaminophen/doxylamine               | vicks nyquil cold/flu liquicap |
| dextromethorphan HBr/acetaminophen/doxylamine               | vicks nyquil nighttime relief  |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | alka-seltzer plus day          |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | alka-seltzer plus sinus-cough  |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | childs tylenol plus cold-cough |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | cold head congestion daytime   |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | cold max daytime               |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | cold multi-symptom             |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | cold-flu relief                |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | comtrex cold-cough             |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | day multi-symp flu-severe cold |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | day time PE                    |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | daytime                        |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | daytime cold                   |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | daytime cold-flu               |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | daytime cold-flu relief (PE)   |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | flu relief therapy daytime     |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | flu-severe cold-cough daytime  |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | herbiomed body aches-sinus m-s |



**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                | Brand Name                     |
|-------------------------------------------------------------|--------------------------------|
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | mapap cold formula             |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | mucinex fast-max cong-HA (DM)  |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | mucinex fast-maxsev cold-sinus |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | mucinex sinus-max cng-pain(DM) |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | multi-symptom cold daytime     |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | robitussin cold-flu day        |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | severe cold and flu-day (DM)   |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | sudafed PE pressure-pain-cough |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | theraflu daytime cold-cough    |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | theraflu expressmax cold day   |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | theraflu multi-symptom cold    |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | theraflu severe cold and cough |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | theraflu svr cld rlf dy(pe-dm) |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | tylenol cold max day           |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | tylenol cold multi-symptom day |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | vicks dayquil cold-flu relief  |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | vicks nature fusion            |
| dextromethorphan HBr/phenylephrine HCl/acetaminophen        | wal-flu severe cold-cough      |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | alka-seltzer plus cold night   |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | alka-seltzer plus d-n (acetam) |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | alka-seltzer plus sin-allg-cgh |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | cold and flu relief plus (d/n) |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | cold multi-symptom nighttime   |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | cold-flu relief, day/night     |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | daytime-nighttime              |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | daytime-nighttime cold-flu     |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | mucinex fast-max nite (doxyl)  |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | nite time cold-flu relief (PE) |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | severe cold and flu nighttime  |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | severe sinus congest alrgy-cgh |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | tylenol cold max night         |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | tylenol cold multi-sympt night |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | vicks dayquil-nyquil           |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | vicks dayquil-nyquil cold-flu  |
| dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine | vicks nyquil severe cold-flu   |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | DAY-TIME                       |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | daytime cold and flu relief    |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | infants' non-aspirin cold      |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | non-aspirin flu                |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | pain reliever flu              |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | suphedrine severe cold max str |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | theraflu cold-cough            |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | theraflu daytime severe cold   |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | theraflu max st non-drowsy     |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | theraflu no-drowsy flu/cld/cgh |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | theraflu-d flu relief day      |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | triaminic softchews            |
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen      | triaminiccough-sorethroat(PSE) |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| dextromethorphan HBr/pseudoephedrine HCl/acetaminophen       | tylenol cold-flu multi-act day |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | alka-seltzer plus cold/coughfm |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | alka-seltzer plus flu          |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | child giltuss multsym cold-flu |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | child triaminic MS fever-cold  |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | children's cold and flu        |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | children's dimetapp cold-flu   |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | children's flu relief          |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | children's plus flu            |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | children's tylenol cold-flu    |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | children's tylenol plus flu    |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | childrens plus multi-symp cold |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | childrens tylenol plus MS cold |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | cold head congestion day/nite  |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | cold head congestion nighttime |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | cold max day-night             |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | cold multi-symptom (chlorphen) |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | cold multi-symptom day/night   |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | cold relief m/s day/night      |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | comtrex day/night cold-cough   |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | comtrex nighttime cold-cough   |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | daytime and nighttime cold     |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | giltuss multi-symptom cold-flu |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | head congestion cold relief    |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | head congestion day-night      |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | multi-symptom cold (pe-cpm)    |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | multi-symptom cold night time  |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | night time cold                |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | theraflu nighttime severe cold |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | tylenol cold head cong day-nig |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | tylenol cold m-s day/night     |
| dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin | tylenol cold multi-sympt night |
| dextromethorphan/phenylephrine/acetaminophen/diphenhydramine | day-night severe cold-flu      |
| dextromethorphan/phenylephrine/acetaminophen/diphenhydramine | flu formula daytime-nighttime  |
| dextromethorphan/phenylephrine/acetaminophen/diphenhydramine | herbiomed deep cold-flu night  |
| dextromethorphan/phenylephrine/acetaminophen/diphenhydramine | multi-symptom severe cold-nt   |
| dextromethorphan/phenylephrine/acetaminophen/diphenhydramine | theraflu day-night cold,cough  |
| dextromethorphan/phenylephrine/acetaminophen/diphenhydramine | wal-flu day-night cold-cough   |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | alka-seltzer plus-d sinus-cold |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | comtrex nighttime cold-cough   |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | non-aspirin cold               |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | theraflu MS severe cold-cough  |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | theraflu cold-cough            |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | theraflu nighttime formula     |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | theraflu severe cold-cough     |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | theraflu-d flu relief night    |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | triaminic flu-cough-fever      |
| dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram | tylenol cold-flu multi-act d-n |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                  | Brand Name                     |
|---------------------------------------------------------------|--------------------------------|
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | alka-seltzer plus cold-flu     |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | night time                     |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | night time cold medicine       |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | night time cold-flu            |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | night time cold-flu relief     |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | nite time cold-flu relief(PSE) |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | nite time-d cold-flu relief    |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | nyquil d                       |
| dextromethorphan/pseudoephedrine HCl/acetaminophen/doxylamine | theraflu nighttime severe cold |
| diclofenac epolamine                                          | licart                         |
| diclofenac potassium                                          | cambia                         |
| diclofenac potassium                                          | cataflam                       |
| diclofenac potassium                                          | diclofenac potassium           |
| diclofenac potassium                                          | lofena                         |
| diclofenac potassium                                          | zipsor                         |
| diclofenac sodium                                             | aleve (diclofenac)             |
| diclofenac sodium                                             | arthritis pain (diclofenac)    |
| diclofenac sodium                                             | diclofenac sodium              |
| diclofenac sodium                                             | dyloject                       |
| diclofenac sodium                                             | motrin arthritis pain          |
| diclofenac sodium                                             | tresni                         |
| diclofenac sodium                                             | venngel II                     |
| diclofenac sodium                                             | voltaren arthritis pain        |
| diclofenac sodium                                             | voltaren-XR                    |
| diclofenac sodium/capsaicin                                   | diclareal                      |
| diclofenac sodium/capsaicin                                   | flexipak                       |
| diclofenac sodium/capsaicin                                   | inavix                         |
| diclofenac sodium/capsaicin                                   | nudiclo tabpak                 |
| diclofenac sodium/capsaicin/methyl salicylate/menthol         | nudroxipak DSDR-50             |
| diclofenac sodium/capsaicin/methyl salicylate/menthol         | nudroxipak DSDR-75             |
| diclofenac sodium/capsicum oleoresin                          | dermasilkrx diclopak           |
| diclofenac sodium/capsicum oleoresin                          | inflammacin                    |
| diclofenac sodium/capsicum oleoresin                          | lextol                         |
| diclofenac sodium/capsicum oleoresin                          | previdolrx plus analgesic pak  |
| diclofenac sodium/capsicum oleoresin                          | xenaflamm                      |
| diclofenac sodium/hyaluronate sodium/niacinamide              | keraxa                         |
| diclofenac sodium/kinesiology tape                            | lixofen                        |
| diclofenac sodium/lidocaine                                   | lidovix                        |
| diclofenac sodium/menthol/camphor                             | diclogen                       |
| diclofenac sodium/menthol/camphor                             | inflatherm(diclofenac-menthol) |
| diclofenac sodium/misoprostol                                 | arthrotec 50                   |
| diclofenac sodium/misoprostol                                 | arthrotec 75                   |
| diclofenac sodium/misoprostol                                 | diclofenac-misoprostol         |
| diclofenac sodium/trolamine salicylate                        | inflatherm (diclofenac-trolam) |
| diclofenac submicronized                                      | diclofenac submicronized       |
| diclofenac submicronized                                      | zorvolex                       |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen           | adt robitussin cough-cold-flu  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen           | adult robitussin night m-s dld |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | allergy and cold PE            |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | allergy m-s nighttime          |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | allergy plus severe sinus HA   |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | allergy relief-sinus headache  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | allergy sinus headache (PE)    |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | allergy-sinus                  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | benadryl allergy-sinus-headach |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | benadryl allergy/cold          |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | benadryl severe allergy-sinus  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | child delsym cough-cold        |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | child mucinex m-s cold night   |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | child tylenol plus cold-allerg |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | children dimetapp m-s cold-flu |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | children's mucinex night time  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | childs plus cold and allergy   |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | cold and flu relief(diphen-pe) |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | cough and severe cold          |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | delsym cough-cold nighttime    |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | flu and sore throat relief     |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | flu relief therapy nighttime   |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | flu severe cold-night(diph-pe) |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | flu-severe cold-cough night    |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | herbiomed allergy cold-sinus   |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | intense cold and flu           |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | mucinex fast-max nite cold-flu |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | mucinex sinus-max nite congest |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | robitussin cold-flu night (PE) |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | severe allergy-sinus headache  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | severe cold (diphen-PE-acetam) |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | severe cold PE                 |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | severe cold cough-flu          |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | theraflu cold-cough            |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | theraflu expressmax cold night |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | theraflu flu-sore throat warm  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | theraflu night severe cold-cgh |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | theraflu nighttime powerpod    |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | theraflu warming relief        |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | wal-dryl severe allergy-sinus  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | wal-flu night severe cold      |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | wal-flu severe cold and cough  |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | wal-phed PE nighttime cold     |
| diphenhydramine HCl/phenylephrine HCl/acetaminophen          | wal-phed PE severe cold        |
| diphenhydramine HCl/phenylephrine/acetaminophen/guaifenesin  | mucinex sinus-max d-n (diphen) |
| diphenhydramine HCl/phenylephrine/acetaminophen/guaifenesin  | sinus relief max str day-night |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | child delsym cough plus dy-nt  |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | child mucinex m-s cold day-nte |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | children's m-s cold day-night  |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | daytime-cold nighttime-cld-flu |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | delsym cough plus day-night    |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | mucinex fast-max day-nite cold |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | mucinex fast-max day-nite cong |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | mucinex fst-mx dy-nt cold(dph) |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | suphedrine PE day-night        |
| diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG | wal-phed PE day-night          |
| doxylamine succinate/dextromethorphan/acetaminophen/guaifen  | coricidin HBP max cold-flu d-n |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | alka-seltzer plus cold day-nt  |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | day-cold night-cold-flu(doxyl) |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | day-nite severe cold-flu       |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | mucinex fast-max day-nt(doxyl) |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | mucinex sinus-max dy-nt (dxyl) |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | severe cold and flu(day/night) |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | tylenol cold-flu-cough dy-nt   |
| doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG   | vicks dayquil-nyquil severe    |
| etodolac                                                     | etodolac                       |
| etodolac                                                     | Iodine                         |
| etodolac/capsaicin/methyl salicylate/menthol                 | nudroxipak e-400               |
| fenoprofen calcium                                           | fenoprofen                     |
| fenoprofen calcium                                           | fenopron                       |
| fenoprofen calcium                                           | fenortho                       |
| fenoprofen calcium                                           | nalfon                         |
| fenoprofen calcium                                           | profeno                        |
| flurbiprofen                                                 | ansaid                         |
| flurbiprofen                                                 | flurbiprofen                   |
| flurbiprofen                                                 | lurbipr                        |
| guaifenesin/dextromethorphan hydrobromide/acetaminophen      | coricidin HBP max cold-cgh-flu |
| guaifenesin/phenylephrine HCl/acetaminophen                  | CCP caffeine free              |
| guaifenesin/phenylephrine HCl/acetaminophen                  | cold and sinus multi-symptom   |
| guaifenesin/phenylephrine HCl/acetaminophen                  | cold head congest(gg-pe-acetm) |
| guaifenesin/phenylephrine HCl/acetaminophen                  | coldonyl                       |
| guaifenesin/phenylephrine HCl/acetaminophen                  | flu relief therapy cold-chest  |
| guaifenesin/phenylephrine HCl/acetaminophen                  | head congestion-mucus          |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucinex cold and sinus         |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucinex fast-max cold-sinus    |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucinex fast-max cong-HA (GG)  |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucinex freefrom cold-flu-cong |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucinex sinus-max cng-pain(gg) |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucinex sinus-max pressur-pain |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucinex sinus-max sev congestn |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucus relief cold and sinus    |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucus relief sinuspressur-pain |
| guaifenesin/phenylephrine HCl/acetaminophen                  | mucus rlf severe sinus congest |
| guaifenesin/phenylephrine HCl/acetaminophen                  | pressure-pain PE plus mucus    |
| guaifenesin/phenylephrine HCl/acetaminophen                  | severe congestion relief       |
| guaifenesin/phenylephrine HCl/acetaminophen                  | severe sinus                   |
| guaifenesin/phenylephrine HCl/acetaminophen                  | sinus congestion-pain(guaif)   |
| guaifenesin/phenylephrine HCl/acetaminophen                  | sinus relief pressure and pain |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                  | Brand Name                     |
|-----------------------------------------------|--------------------------------|
| guaifenesin/phenylephrine HCl/acetaminophen   | sinus relief severe congestion |
| guaifenesin/phenylephrine HCl/acetaminophen   | sudafed PE head congestn-mucus |
| guaifenesin/phenylephrine HCl/acetaminophen   | sudafed PE pressure-pain-mucus |
| guaifenesin/phenylephrine HCl/acetaminophen   | theraflu severe cold and cough |
| guaifenesin/phenylephrine HCl/acetaminophen   | tylenol cold head congest sevr |
| guaifenesin/phenylephrine HCl/acetaminophen   | tylenol sinus congestion pain  |
| guaifenesin/phenylephrine HCl/acetaminophen   | tylenol sinus severe           |
| guaifenesin/phenylephrine HCl/acetaminophen   | wal-phed PE triple relief      |
| guaifenesin/pseudoephedrine HCl/acetaminophen | poly-vent plus                 |
| guaifenesin/pseudoephedrine HCl/acetaminophen | severe sinus congestion        |
| guaifenesin/pseudoephedrine HCl/acetaminophen | sudafed triple action          |
| guaifenesin/pseudoephedrine HCl/acetaminophen | tylenol sinus severe congest   |
| hydrocodone bitartrate/acetaminophen          | co-gesic                       |
| hydrocodone bitartrate/acetaminophen          | hycet                          |
| hydrocodone bitartrate/acetaminophen          | hydrocodone-acetaminophen      |
| hydrocodone bitartrate/acetaminophen          | lorcet (hydrocodone)           |
| hydrocodone bitartrate/acetaminophen          | lorcet 10/650                  |
| hydrocodone bitartrate/acetaminophen          | lorcet HD                      |
| hydrocodone bitartrate/acetaminophen          | lorcet plus                    |
| hydrocodone bitartrate/acetaminophen          | lortab                         |
| hydrocodone bitartrate/acetaminophen          | lortab 10-325                  |
| hydrocodone bitartrate/acetaminophen          | lortab 5-325                   |
| hydrocodone bitartrate/acetaminophen          | lortab 7.5-325                 |
| hydrocodone bitartrate/acetaminophen          | lortab elixir                  |
| hydrocodone bitartrate/acetaminophen          | maxidone                       |
| hydrocodone bitartrate/acetaminophen          | norco                          |
| hydrocodone bitartrate/acetaminophen          | stagesic                       |
| hydrocodone bitartrate/acetaminophen          | verdrocet                      |
| hydrocodone bitartrate/acetaminophen          | vicodin                        |
| hydrocodone bitartrate/acetaminophen          | vicodin ES                     |
| hydrocodone bitartrate/acetaminophen          | vicodin HP                     |
| hydrocodone bitartrate/acetaminophen          | xodol 10/300                   |
| hydrocodone bitartrate/acetaminophen          | xodol 5/300                    |
| hydrocodone bitartrate/acetaminophen          | xodol 7.5/300                  |
| hydrocodone bitartrate/acetaminophen          | zamicet                        |
| hydrocodone bitartrate/acetaminophen          | zolvit                         |
| hydrocodone bitartrate/acetaminophen          | zydone                         |
| hydrocodone/ibuprofen                         | hydrocodone-ibuprofen          |
| hydrocodone/ibuprofen                         | ibudone                        |
| hydrocodone/ibuprofen                         | reprexain                      |
| hydrocodone/ibuprofen                         | vicoprofen                     |
| hydrocodone/ibuprofen                         | xylon 10                       |
| ibuprofen                                     | IBU                            |
| ibuprofen                                     | IBU-200                        |
| ibuprofen                                     | addaprin                       |
| ibuprofen                                     | advil                          |
| ibuprofen                                     | advil junior strength          |
| ibuprofen                                     | advil liqui-gel                |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                           | Brand Name                     |
|--------------------------------------------------------|--------------------------------|
| ibuprofen                                              | advil liqui-gels minis         |
| ibuprofen                                              | advil migraine                 |
| ibuprofen                                              | caldolor                       |
| ibuprofen                                              | child ibuprofen                |
| ibuprofen                                              | children's advil               |
| ibuprofen                                              | children's ibu-drops           |
| ibuprofen                                              | children's ibuprofen           |
| ibuprofen                                              | children's medi-profen         |
| ibuprofen                                              | children's motrin              |
| ibuprofen                                              | children's motrin jr strength  |
| ibuprofen                                              | children's profen IB           |
| ibuprofen                                              | i-prin                         |
| ibuprofen                                              | ibu-drops                      |
| ibuprofen                                              | ibuprofen                      |
| ibuprofen                                              | ibuprofen IB                   |
| ibuprofen                                              | ibuprofen jr strength          |
| ibuprofen                                              | infant's advil                 |
| ibuprofen                                              | infant's ibuprofen             |
| ibuprofen                                              | infant's medi-profen           |
| ibuprofen                                              | infant's motrin                |
| ibuprofen                                              | infants ibu-drops              |
| ibuprofen                                              | infants profenib               |
| ibuprofen                                              | medi-profen                    |
| ibuprofen                                              | motrin                         |
| ibuprofen                                              | motrin IB                      |
| ibuprofen                                              | pain relief (ibuprofen)        |
| ibuprofen                                              | provil                         |
| ibuprofen                                              | wal-profen                     |
| ibuprofen lysine/PF                                    | ibuprofen lysine (PF)          |
| ibuprofen lysine/PF                                    | neoprofen (ibuprofen lysn)(PF) |
| ibuprofen sodium/acetaminophen                         | combogesic IV                  |
| ibuprofen/acetaminophen                                | advil dual action              |
| ibuprofen/acetaminophen                                | combogesic                     |
| ibuprofen/acetaminophen                                | dual action pain reliever      |
| ibuprofen/acetaminophen                                | ibuprofen-acetaminophen        |
| ibuprofen/acetaminophen                                | motrin dual action w-tylenol   |
| ibuprofen/capsaicin/methyl salicylate/menthol          | nudroxipak i-800               |
| ibuprofen/diphenhydramine HCl                          | advil PM liqui-gels            |
| ibuprofen/diphenhydramine HCl                          | ibuprofen PM                   |
| ibuprofen/diphenhydramine HCl                          | ibuprofen-diphenhydramine HCl  |
| ibuprofen/diphenhydramine citrate                      | advil PM                       |
| ibuprofen/diphenhydramine citrate                      | ibuprofen PM                   |
| ibuprofen/diphenhydramine citrate                      | ibuprofen-diphenhydramine cit  |
| ibuprofen/diphenhydramine citrate                      | motrin PM                      |
| ibuprofen/famotidine                                   | duexis                         |
| ibuprofen/famotidine                                   | ibuprofen-famotidine           |
| ibuprofen/glycerin                                     | ibupak                         |
| ibuprofen/irritants counter-irritants combination no.2 | comfort pac-ibuprofen          |



**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                            | Brand Name                     |
|---------------------------------------------------------|--------------------------------|
| ibuprofen/oxycodone HCl                                 | ibuprofen-oxycodone            |
| ibuprofen/phenylephrine HCl                             | advil congestion relief        |
| ibuprofen/phenylephrine HCl                             | advil sinus congestion-pain    |
| ibuprofen/phenylephrine HCl                             | congestion relief (ibuprof-PE) |
| ibuprofen/phenylephrine HCl                             | sinus congestion-pain (ibu-pe) |
| ibuprofen/phenylephrine HCl                             | sudafed PE head congestn-pain  |
| ibuprofen/pseudoephedrine HCl                           | advil cold and sinus           |
| ibuprofen/pseudoephedrine HCl                           | cold and sinus pain relief     |
| ibuprofen/pseudoephedrine HCl                           | cold-sinus relief              |
| ibuprofen/pseudoephedrine HCl                           | cold-sinus relief (ibuprofen)  |
| ibuprofen/pseudoephedrine HCl                           | ibuprofen cold                 |
| ibuprofen/pseudoephedrine HCl                           | ibuprofen cold-sinus(with PSE) |
| ibuprofen/pseudoephedrine HCl                           | wal-profen cold-sinus          |
| ibuprofen/pseudoephedrine HCl                           | wal-profen d cold and sinus    |
| indomethacin                                            | indocin                        |
| indomethacin                                            | indomethacin                   |
| indomethacin sodium                                     | indomethacin sodium            |
| indomethacin, submicronized                             | indomethacin submicronized     |
| indomethacin, submicronized                             | tivorbex                       |
| isometheptene mucate/caffeine/acetaminophen             | isomethepten-caf-acetaminophen |
| isometheptene mucate/caffeine/acetaminophen             | prodrin                        |
| isometheptene mucate/dichloralphenazone/acetaminophen   | isometh-dichloral-acetaminophn |
| isometheptene mucate/dichloralphenazone/acetaminophen   | midrin                         |
| isometheptene mucate/dichloralphenazone/acetaminophen   | migragesic IDA                 |
| isometheptene mucate/dichloralphenazone/acetaminophen   | nodolor                        |
| ketoprofen                                              | ketoprofen                     |
| ketoprofen                                              | ketoprofen (bulk)              |
| ketoprofen                                              | kiprofen                       |
| ketorolac tromethamine                                  | ketorolac                      |
| ketorolac tromethamine                                  | readysharp ketorolac           |
| ketorolac/norflurane and pentafluoropropane (HFC 245fa) | toronova II SUIK               |
| ketorolac/norflurane and pentafluoropropane (HFC 245fa) | toronova SUIK                  |
| magnesium salicylate/acetaminophen/caffeine             | back pain-off                  |
| meclofenamate sodium                                    | meclofenamate                  |
| mefenamic acid                                          | mefenamic acid                 |
| mefenamic acid                                          | ponstel                        |
| meloxicam                                               | anjeso                         |
| meloxicam                                               | meloxicam                      |
| meloxicam                                               | mobic                          |
| meloxicam                                               | qmiiz ODT                      |
| meloxicam, submicronized                                | meloxicam submicronized        |
| meloxicam, submicronized                                | vivlodex                       |
| meloxicam/irritants counter-irritants combination no.2  | comfort pac-meloxicam          |
| nabumetone                                              | nabumetone                     |
| nabumetone                                              | relafen                        |
| nabumetone                                              | relafen DS                     |
| nabumetone/capsaicin/methyl salicylate/menthol          | nudroxipak n-500               |
| naproxen                                                | EC-naprosyn                    |



**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                        | Brand Name                     |
|-----------------------------------------------------|--------------------------------|
| naproxen                                            | EC-naproxen                    |
| naproxen                                            | naprosyn                       |
| naproxen                                            | naproxen                       |
| naproxen sodium                                     | aleve                          |
| naproxen sodium                                     | all day pain relief            |
| naproxen sodium                                     | all day relief                 |
| naproxen sodium                                     | anaprox                        |
| naproxen sodium                                     | anaprox DS                     |
| naproxen sodium                                     | flanax (naproxen)              |
| naproxen sodium                                     | mediproxen                     |
| naproxen sodium                                     | midol (naproxen)               |
| naproxen sodium                                     | naprelan CR                    |
| naproxen sodium                                     | naproxen sodium                |
| naproxen sodium                                     | wal-proxen                     |
| naproxen sodium/diphenhydramine HCl                 | aleve PM                       |
| naproxen sodium/diphenhydramine HCl                 | naproxen PM                    |
| naproxen sodium/menthol                             | napropak cool                  |
| naproxen sodium/pseudoephedrine HCl                 | aleve cold and sinus           |
| naproxen sodium/pseudoephedrine HCl                 | aleve sinus and headache       |
| naproxen sodium/pseudoephedrine HCl                 | aleve-d sinus and cold         |
| naproxen sodium/pseudoephedrine HCl                 | aleve-d sinus and headache     |
| naproxen sodium/pseudoephedrine HCl                 | all day cold and sinus         |
| naproxen sodium/pseudoephedrine HCl                 | all day pain relief sinus,cold |
| naproxen sodium/pseudoephedrine HCl                 | sinus and cold-d               |
| naproxen sodium/pseudoephedrine HCl                 | sudafed 12 hr pressure-pain    |
| naproxen sodium/pseudoephedrine HCl                 | sudafed sinus 12hr pressr-pain |
| naproxen/capsaicin/menthol                          | napropax                       |
| naproxen/capsaicin/menthol                          | naproxenpax                    |
| naproxen/capsaicin/menthol/methyl salicylate        | pain relief collection         |
| naproxen/capsicum oleoresin                         | naproten                       |
| naproxen/esomeprazole magnesium                     | naproxen-esomeprazole          |
| naproxen/esomeprazole magnesium                     | vimovo                         |
| naproxen/irritant counter-irritant combination no.2 | comfort pac-naproxen           |
| nepafenac                                           | ilevro                         |
| nepafenac                                           | nevanac                        |
| orphenadrine citrate/aspirin/caffeine               | norgesic                       |
| orphenadrine citrate/aspirin/caffeine               | norgesic forte                 |
| orphenadrine citrate/aspirin/caffeine               | orphenadrine compound          |
| orphenadrine citrate/aspirin/caffeine               | orphenadrine compound forte    |
| orphenadrine citrate/aspirin/caffeine               | orphenadrine compound-DS       |
| orphenadrine citrate/aspirin/caffeine               | orphenadrine-ASA-caffeine      |
| orphenadrine citrate/aspirin/caffeine               | orphengesic forte              |
| oxaprozin                                           | coxanto                        |
| oxaprozin                                           | daypro                         |
| oxaprozin                                           | oxaprozin                      |
| oxycodone HCl/acetaminophen                         | endocet                        |
| oxycodone HCl/acetaminophen                         | magnacet                       |
| oxycodone HCl/acetaminophen                         | nalocet                        |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                        | Brand Name                     |
|-----------------------------------------------------|--------------------------------|
| oxycodone HCl/acetaminophen                         | oxycodone-acetaminophen        |
| oxycodone HCl/acetaminophen                         | percocet                       |
| oxycodone HCl/acetaminophen                         | primlev                        |
| oxycodone HCl/acetaminophen                         | prolate                        |
| oxycodone HCl/acetaminophen                         | roxicet                        |
| oxycodone HCl/acetaminophen                         | tylox                          |
| oxycodone HCl/acetaminophen                         | xartemis XR                    |
| oxycodone HCl/acetaminophen                         | xolox                          |
| oxycodone HCl/aspirin                               | endodan                        |
| oxycodone HCl/aspirin                               | oxycodone-aspirin              |
| oxycodone HCl/aspirin                               | percordan                      |
| pentazocine HCl/acetaminophen                       | pentazocine-acetaminophen      |
| pheniramine maleate/phenylephrine HCl/acetaminophen | flu and sore throat            |
| pheniramine maleate/phenylephrine HCl/acetaminophen | theraflu cold-sore throat (PE) |
| pheniramine maleate/phenylephrine HCl/acetaminophen | theraflu flu-sore throat       |
| pheniramine maleate/phenylephrine HCl/acetaminophen | theraflu sinus and cold        |
| pheniramine maleate/phenylephrine HCl/acetaminophen | wal-flu cold and sore throat   |
| pheniramine maleate/phenylephrine HCl/acetaminophen | wal-flu night time             |
| phenylephrine HCl/acetaminophen                     | acetaminophen congestion-pain  |
| phenylephrine HCl/acetaminophen                     | adult robitussin nasal relief  |
| phenylephrine HCl/acetaminophen                     | contac cold-flu day            |
| phenylephrine HCl/acetaminophen                     | contac cold-flu max strength   |
| phenylephrine HCl/acetaminophen                     | daytime sinus                  |
| phenylephrine HCl/acetaminophen                     | daytime sinus relief           |
| phenylephrine HCl/acetaminophen                     | daytime sinus-congestion       |
| phenylephrine HCl/acetaminophen                     | excedrin sinus headache        |
| phenylephrine HCl/acetaminophen                     | flu and severe cold-daytime    |
| phenylephrine HCl/acetaminophen                     | mapap sinus max strength (PE)  |
| phenylephrine HCl/acetaminophen                     | non-aspirin sinus              |
| phenylephrine HCl/acetaminophen                     | pain relief sinus PE           |
| phenylephrine HCl/acetaminophen                     | pressure and pain              |
| phenylephrine HCl/acetaminophen                     | pressure and pain PE           |
| phenylephrine HCl/acetaminophen                     | pyrroxate cold and congestion  |
| phenylephrine HCl/acetaminophen                     | sinus congestion and pain      |
| phenylephrine HCl/acetaminophen                     | sinus formula daytime          |
| phenylephrine HCl/acetaminophen                     | sinus headache PE              |
| phenylephrine HCl/acetaminophen                     | sinus pain relief              |
| phenylephrine HCl/acetaminophen                     | sinus pain-pressure (PE)       |
| phenylephrine HCl/acetaminophen                     | sinus relief (non-drowsy)      |
| phenylephrine HCl/acetaminophen                     | sinutab sinus maximum strength |
| phenylephrine HCl/acetaminophen                     | sudafed PE pressure-pain       |
| phenylephrine HCl/acetaminophen                     | sudafed PE sinus headache      |
| phenylephrine HCl/acetaminophen                     | suphedrine PE sinus headache   |
| phenylephrine HCl/acetaminophen                     | tylenol sinus congestion pain  |
| phenylephrine HCl/acetaminophen                     | tylenol sinus headache         |
| phenylephrine HCl/acetaminophen                     | vicks dayquil sinex            |
| phenylephrine HCl/acetaminophen                     | vicks qllearquil daytime sinus |
| phenylephrine HCl/acetaminophen                     | vicks sinex daytime            |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| phenylephrine HCl/acetaminophen                              | wal-flu severe cold            |
| phenylephrine HCl/acetaminophen                              | wal-phed PE sinus headache     |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | BC sinus pain and congestion   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | adt robitussin night nasal rlf |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | allergy multi-symptom          |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | allergy relief multi-symptom   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | allergy relief(chlorphen-acet) |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | allergy sinus PE               |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | children's tylenol plus cold   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | childrens plus cold            |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | cold relief                    |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | comtrex day/ni sev cold-sinus  |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | comtrex flu therapy            |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | contac cold-flu day and night  |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | contac cold-flu max strength   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | dristan cold                   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | effervescent cold relief plus  |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | flonase headache-allergy rlf   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | medicaidin-d                   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | norel AD                       |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | onset forte                    |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | pain relief allergy sinus      |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | protid                         |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | sinus congest-pain day-night   |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | sinus congestion-pain(chlorph) |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | sinus-headache day-night       |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | sinutrol PE                    |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | tylenol allergy multi-symptom  |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | tylenol sinus congestion pain  |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | tylenol sinus-congest-pain d/n |
| phenylephrine HCl/acetaminophen/chlorpheniramine             | valihist                       |
| phenylephrine HCl/acetaminophen/dexbrompheniramine maleate   | complete sinus relief          |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | day-night sinus relief         |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | daytime and nitetime sinus     |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | nighttime sinus                |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | nighttime sinus-congestion     |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | sinus daytime-nighttime        |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | vicks dayquil-nyquil sinex     |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | vicks nyquil sinex             |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | vicks qlarquil nighttime sinus |
| phenylephrine HCl/acetaminophen/doxylamine succinate         | vicks sinex nighttime          |
| phenylephrine HCl/codeine phosphate/acetaminophen/guaifen    | phenflu CD                     |
| phenylephrine HCl/codeine phosphate/acetaminophen/guaifen    | phenflu CDX                    |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | child mucinex MS cold-throat   |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | child mucinex cough-cold-fever |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | child mucinex freefrom dy cold |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | child multi-symptom cold-fever |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | children's cold-cough-sore     |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | children's mucinex cold-fever  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | children's mucinex cold-flu    |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | cold and flu severe            |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | cold head congestion sever day |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | cold max severe daytime        |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | cold severe congestion         |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | cold-cough sinus relief PE     |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | cold-flu-sore throat           |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | cough and cold PE              |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | daytime max cold-flu           |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | decorel forte plus             |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | delsym cough-cold daytime      |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | dometuss g                     |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | fast mucus relief severe cold  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | head congestion cold relief    |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | head congestion-flu severe PE  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | herbiomed severe cold-flu m-s  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | maximum strength cold-flu      |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex cold,flu,sore throat   |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex fast-max cold-flu      |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex fast-max cold-flu-thrt |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex fast-max severe cold   |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex freefrom day cold-flu  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex junior cold-flu        |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex sinus-max pressure-cgh |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucinex sinus-max sev cong(dm) |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucus relief cold-flu-sore thr |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucus relief plus              |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucus relief sev congest-cold  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | mucus relief severe cold       |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | multi-symptom cold (PE)        |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | non-aspirin severe congest m-s |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | non-pseudo cold relief         |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | pain relief cold               |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | pressure-pain PE plus cold     |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | pressure-pain-cold             |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | robitussin sevr cough-cold-flu |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | rompe pecho max multi symptoms |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | severe cold                    |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | severe cold and flu (PE)       |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | severe cold multi-symptom      |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | sinus PE pressure-pain-cold    |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | sudafed PE cold and cough      |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | sudafed PE head congestion-flu |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | sudafed PE pressure-pain-cold  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | theraflu expressmax sv cld-flu |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | tussin CF max severe m-s cold  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | tylenol cold and flu severe    |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | tylenol cold head congestion   |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | vicks dayquil severe cold-flu  |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | wal-phed PE cold-cough         |
| phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen | wal-phed PE pressure+pain+cold |
| phenylephrine HCl/ketorolac tromethamine                     | omidria                        |
| piroxicam                                                    | feldene                        |
| piroxicam                                                    | piroxicam                      |
| prednisolone sodium phosphate/bromfenac sodium               | prednisolone sod ph-bromfenac  |
| prednisolone sodium phosphate/bromfenac sodium/PF            | prednisolone sod ph-bromf (PF) |
| prednisolone sodium phosphate/moxifloxacin HCl/bromfenac/PF  | prednisolon-moxiflox-bromf(PF) |
| pseudoephedrine HCl/acetaminophen                            | daytime sinus relief           |
| pseudoephedrine HCl/acetaminophen                            | max str non-drowsy sinus       |
| pseudoephedrine HCl/acetaminophen                            | nexafed sinus pressure-pain    |
| pseudoephedrine HCl/acetaminophen                            | non-aspirin sinus non-drowsy   |
| pseudoephedrine HCl/acetaminophen                            | ornex                          |
| pseudoephedrine HCl/acetaminophen                            | ornex maximum strength         |
| pseudoephedrine HCl/acetaminophen                            | pain reliever sinus            |
| pseudoephedrine HCl/acetaminophen                            | sinus headache                 |
| pseudoephedrine HCl/acetaminophen                            | sinus headache degongestant    |
| pseudoephedrine HCl/acetaminophen                            | sinus maximum strength         |
| pseudoephedrine HCl/acetaminophen                            | tavist sinus max st-non-drowsy |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | allergy sinus-d                |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | non-aspirin allergy sinus      |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | non-aspirin child's cold       |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | pain reliever allergy sinus    |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | theraflu cold and sore throat  |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | theraflu cold-cough            |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | theraflu flu-sore throat       |
| pseudoephedrine HCl/acetaminophen/chlorpheniramine           | triaminicin                    |
| pseudoephedrine HCl/acetaminophen/diphenhydramine            | non-aspirin allergy sinus pm   |
| pseudoephedrine HCl/acetaminophen/diphenhydramine            | non-aspirin flu                |
| pseudoephedrine HCl/acetaminophen/diphenhydramine            | valu-dryl allergy-sinus-head   |
| pseudoephedrine HCl/codeine phosphate/acetaminophen/guaifen  | maxiflu CD                     |
| pseudoephedrine HCl/codeine phosphate/acetaminophen/guaifen  | maxiflu CDX                    |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | DAY-TIME                       |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | cold and cough (pe-dm-gg-acet) |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | cough and cold                 |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | day time liquid cold           |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | duraflu                        |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | severe cold-congestion         |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | theraflu cold-cough            |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | theraflu max-d severe cold-flu |
| pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen   | tylenol cold severe congest    |
| pyrilamine maleate/chlophedianol HCl/acetaminophen           | ninjacof-a                     |
| rizatriptan benzoate/meloxicam                               | symbravo                       |
| salicylamide/acetaminophen/phenyltoloxamine                  | anabar                         |
| salicylamide/acetaminophen/phenyltoloxamine                  | duraxin                        |
| sulindac                                                     | clinoril                       |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                  | Brand Name                     |
|---------------------------------------------------------------|--------------------------------|
| sulindac                                                      | sulindac                       |
| sumatriptan succinate/naproxen sodium                         | sumatriptan-naproxen           |
| sumatriptan succinate/naproxen sodium                         | treximet                       |
| tolmetin sodium                                               | tolectin 600                   |
| tolmetin sodium                                               | tolmetin                       |
| tramadol HCl/acetaminophen                                    | tramadol-acetaminophen         |
| tramadol HCl/acetaminophen                                    | ultracet                       |
| tramadol HCl/celecoxib                                        | seglentis                      |
| triprolidine HCl/dextromethorphan HBr/acetaminophen           | delsym nighttime cough         |
| triprolidine HCl/dextromethorphan HBr/acetaminophen           | mucinex nightshift cold-flu    |
| triprolidine HCl/dextromethorphan/acetaminophen/guaifenesin   | mucinex fast-max DM nightshift |
| triprolidine HCl/phenylephrine/dextromethorphan/acetaminophen | child mucinex freefrom nt cold |
| triprolidine HCl/phenylephrine/dextromethorphan/acetaminophen | mucinex freefrom nt cold-flu   |
| triprolidine HCl/phenylephrine/dextromethorphan/acetaminophen | mucinex nightshft cold-flu clr |
| triprolidine HCl/phenylephrine/dextromethorphan/acetaminophen | mucinex nightshft sevr cld-flu |
| triprolidine HCl/phenylephrine/dextromethorphan/acetaminophen | mucinex nightshift sinus       |
| <b>Beta Blockers</b>                                          |                                |
| acebutolol HCl                                                | acebutolol                     |
| acebutolol HCl                                                | sectral                        |
| atenolol                                                      | atenolol                       |
| atenolol                                                      | tenormin                       |
| betaxolol HCl                                                 | betaxolol                      |
| betaxolol HCl                                                 | kerlone                        |
| bisoprolol fumarate                                           | bisoprolol fumarate            |
| bisoprolol fumarate                                           | zebeta                         |
| carvedilol                                                    | carvedilol                     |
| carvedilol                                                    | coreg                          |
| carvedilol phosphate                                          | carvedilol phosphate           |
| carvedilol phosphate                                          | coreg CR                       |
| esmolol HCl                                                   | brevibloc                      |
| esmolol HCl                                                   | esmolol                        |
| esmolol HCl in sodium chloride, iso-osmotic                   | brevibloc in NaCl (iso-osm)    |
| esmolol HCl in sodium chloride, iso-osmotic                   | esmolol in NaCl (iso-osm)      |
| esmolol HCl in sterile water                                  | esmolol in sterile water       |
| labetalol HCl                                                 | labetalol                      |
| labetalol HCl                                                 | trandate                       |
| labetalol HCl in dextrose, iso-osmotic                        | labetalol in dextrose,iso-osm  |
| labetalol HCl in sodium chloride, iso-osmotic                 | labetalol in NaCl (iso-osmot)  |
| labetalol in dextrose 5 % in water                            | labetalol in dextrose 5 %      |
| landiolol HCl                                                 | rapiblyk                       |
| metoprolol succinate                                          | kaspargo sprinkle              |
| metoprolol succinate                                          | metoprolol succinate           |
| metoprolol succinate                                          | toprol XL                      |
| metoprolol tartrate                                           | lopressor                      |
| metoprolol tartrate                                           | metoprolol tartrate            |
| nadolol                                                       | corgard                        |
| nadolol                                                       | nadolol                        |
| nebivolol HCl                                                 | bystolic                       |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                          | Brand Name                     |
|-------------------------------------------------------|--------------------------------|
| nebivolol HCl                                         | nebivolol                      |
| penbutolol sulfate                                    | levatol                        |
| pindolol                                              | pindolol                       |
| propranolol HCl                                       | hemangeol                      |
| propranolol HCl                                       | inderal LA                     |
| propranolol HCl                                       | inderal XL                     |
| propranolol HCl                                       | innopran XL                    |
| propranolol HCl                                       | propranolol                    |
| sotalol HCl                                           | betapace                       |
| sotalol HCl                                           | betapace AF                    |
| sotalol HCl                                           | sorine                         |
| sotalol HCl                                           | sotalol                        |
| sotalol HCl                                           | sotalol AF                     |
| sotalol HCl                                           | sotylize                       |
| timolol maleate                                       | timolol maleate                |
| <b>Calcium Channel Blockers</b>                       |                                |
| aliskiren hemifumarate/amlodipine besylate            | tekamlo                        |
| aliskiren hemifumarate/amlodipine/hydrochlorothiazide | amturnide                      |
| amlodipine benzoate                                   | katerzia                       |
| amlodipine besylate                                   | amlodipine                     |
| amlodipine besylate                                   | norliqva                       |
| amlodipine besylate                                   | norvasc                        |
| amlodipine besylate/atorvastatin calcium              | amlodipine-atorvastatin        |
| amlodipine besylate/atorvastatin calcium              | caduet                         |
| amlodipine besylate/benazepril HCl                    | amlodipine-benazepril          |
| amlodipine besylate/benazepril HCl                    | lotrel                         |
| amlodipine besylate/celecoxib                         | consensi                       |
| amlodipine besylate/olmesartan medoxomil              | amlodipine-olmesartan          |
| amlodipine besylate/olmesartan medoxomil              | azor                           |
| amlodipine besylate/valsartan                         | amlodipine-valsartan           |
| amlodipine besylate/valsartan                         | exforge                        |
| amlodipine besylate/valsartan/hydrochlorothiazide     | amlodipine-valsartan-hcthiazid |
| amlodipine besylate/valsartan/hydrochlorothiazide     | exforge HCT                    |
| clevipine butyrate                                    | cleviprex                      |
| diltiazem HCl                                         | DILT-CD                        |
| diltiazem HCl                                         | DILT-XR                        |
| diltiazem HCl                                         | cardizem                       |
| diltiazem HCl                                         | cardizem CD                    |
| diltiazem HCl                                         | cardizem LA                    |
| diltiazem HCl                                         | cartia XT                      |
| diltiazem HCl                                         | dilacor XR                     |
| diltiazem HCl                                         | diltia XT                      |
| diltiazem HCl                                         | diltiazem HCl                  |
| diltiazem HCl                                         | diltzac ER                     |
| diltiazem HCl                                         | matzim LA                      |
| diltiazem HCl                                         | taztia XT                      |
| diltiazem HCl                                         | tiadylt ER                     |
| diltiazem HCl                                         | tiazac                         |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| diltiazem HCl in 0.9 % sodium chloride                       | diltiazem HCl in 0.9% NaCl     |
| diltiazem HCl in sodium chloride, iso-osmotic                | diltiazem HCl in 0.9% NaCl     |
| diltiazem HCl/dextrose 5 % in water                          | diltiazem in dextrose 5 %      |
| felodipine                                                   | felodipine                     |
| isradipine                                                   | dynacirc CR                    |
| isradipine                                                   | isradipine                     |
| levamlodipine maleate                                        | conjupri                       |
| levamlodipine maleate                                        | levamlodipine                  |
| nicardipine HCl                                              | cardene IV                     |
| nicardipine HCl                                              | cardene SR                     |
| nicardipine HCl                                              | nicardipine                    |
| nicardipine HCl in 0.9 % sodium chloride                     | nicardipine in 0.9 % sod chlor |
| nicardipine in 5 % dextrose in water                         | nicardipine in 5 % dextrose    |
| nicardipine in dextrose, iso-osmotic                         | cardene IV in dextrose         |
| nicardipine in sodium chloride, iso-osmotic                  | cardene IV in sodium chloride  |
| nicardipine in sodium chloride, iso-osmotic                  | nicardipine in NaCl (iso-os)   |
| nifedipine                                                   | adalat CC                      |
| nifedipine                                                   | afeditab CR                    |
| nifedipine                                                   | nifediac CC                    |
| nifedipine                                                   | nifedical XL                   |
| nifedipine                                                   | nifedipine                     |
| nifedipine                                                   | procardia                      |
| nifedipine                                                   | procardia XL                   |
| nifedipine, micronized                                       | nifedipine, micronized (bulk)  |
| nimodipine                                                   | nimodipine                     |
| nimodipine                                                   | nymalize                       |
| nisoldipine                                                  | nisoldipine                    |
| nisoldipine                                                  | sular                          |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | olmesartan-amlodipin-hcthiazid |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | tribenzor                      |
| perindopril arginine/amlodipine besylate                     | prestalia                      |
| telmisartan/amlodipine besylate                              | telmisartan-amlodipine         |
| telmisartan/amlodipine besylate                              | twynsta                        |
| trandolapril/verapamil HCl                                   | tarka                          |
| trandolapril/verapamil HCl                                   | trandolapril-verapamil         |
| verapamil HCl                                                | calan                          |
| verapamil HCl                                                | calan SR                       |
| verapamil HCl                                                | covera-HS                      |
| verapamil HCl                                                | isoptin SR                     |
| verapamil HCl                                                | verapamil                      |
| verapamil HCl                                                | verelan                        |
| verapamil HCl                                                | verelan PM                     |
| <b>Any Diuretics</b>                                         |                                |
| aliskiren hemifumarate/hydrochlorothiazide                   | tekturna HCT                   |
| amiloride HCl                                                | amiloride                      |
| amiloride HCl                                                | midamor                        |
| amiloride HCl/hydrochlorothiazide                            | amiloride-hydrochlorothiazide  |
| amlodipine besylate/valsartan/hydrochlorothiazide            | amlodipine-valsartan-hcthiazid |



**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                      | Brand Name                     |
|---------------------------------------------------|--------------------------------|
| amlodipine besylate/valsartan/hydrochlorothiazide | exforge HCT                    |
| ammonium chloride                                 | ammonium chloride              |
| atenolol/chlorthalidone                           | atenolol-chlorthalidone        |
| atenolol/chlorthalidone                           | tenoretic 100                  |
| atenolol/chlorthalidone                           | tenoretic 50                   |
| azilsartan medoxomil/chlorthalidone               | edarbyclor                     |
| benazepril HCl/hydrochlorothiazide                | benazepril-hydrochlorothiazide |
| benazepril HCl/hydrochlorothiazide                | lotensin HCT                   |
| bisoprolol fumarate/hydrochlorothiazide           | bisoprolol-hydrochlorothiazide |
| bisoprolol fumarate/hydrochlorothiazide           | ziac                           |
| bumetanide                                        | bumetanide                     |
| candesartan cilexetil/hydrochlorothiazide         | atacand HCT                    |
| candesartan cilexetil/hydrochlorothiazide         | candesartan-hydrochlorothiazid |
| captopril/hydrochlorothiazide                     | captopril-hydrochlorothiazide  |
| chlorothiazide                                    | chlorothiazide                 |
| chlorothiazide                                    | diuril                         |
| chlorothiazide sodium                             | chlorothiazide sodium          |
| chlorothiazide sodium                             | diuril IV                      |
| chlorthalidone                                    | chlorthalidone                 |
| chlorthalidone                                    | thalitone                      |
| clonidine HCl/chlorthalidone                      | clorpres                       |
| conivaptan HCl/dextrose 5 % in water              | vaprisol in 5 % dextrose       |
| dichlorphenamide                                  | dichlorphenamide               |
| enalapril maleate/hydrochlorothiazide             | enalapril-hydrochlorothiazide  |
| enalapril maleate/hydrochlorothiazide             | vaseretic                      |
| eplerenone                                        | eplerenone                     |
| eplerenone                                        | inspra                         |
| eprosartan mesylate/hydrochlorothiazide           | teveten HCT                    |
| ethacrynate sodium                                | ethacrynate sodium             |
| ethacrynate sodium                                | sodium edecrin                 |
| ethacrynic acid                                   | edecrin                        |
| ethacrynic acid                                   | ethacrynic acid                |
| fosinopril sodium/hydrochlorothiazide             | fosinopril-hydrochlorothiazide |
| furosemide                                        | furoscix                       |
| furosemide                                        | furosemide                     |
| furosemide                                        | lasix                          |
| furosemide in 0.9 % sodium chloride               | furosemide in 0.9 % NaCl       |
| furosemide/dextrose 5 % in water                  | furosemide in dextrose 5 %     |
| herbal drugs                                      | swamp root                     |
| hydrochlorothiazide                               | hydrochlorothiazide            |
| hydrochlorothiazide                               | microzide                      |
| indapamide                                        | indapamide                     |
| irbesartan/hydrochlorothiazide                    | avalide                        |
| irbesartan/hydrochlorothiazide                    | irbesartan-hydrochlorothiazide |
| lisinopril/hydrochlorothiazide                    | lisinopril-hydrochlorothiazide |
| lisinopril/hydrochlorothiazide                    | prinzipide                     |
| lisinopril/hydrochlorothiazide                    | zestoretic                     |
| losartan potassium/hydrochlorothiazide            | hyzaar                         |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                 | Brand Name                      |
|--------------------------------------------------------------|---------------------------------|
| losartan potassium/hydrochlorothiazide                       | losartan-hydrochlorothiazide    |
| methazolamide                                                | methazolamide                   |
| methazolamide                                                | neptazane                       |
| methyclothiazide                                             | methyclothiazide                |
| methyl dopa/hydrochlorothiazide                              | methyl dopa-hydrochlorothiazide |
| metolazone                                                   | metolazone                      |
| metolazone                                                   | zaroxolyn                       |
| metoprolol succinate/hydrochlorothiazide                     | dutoprol                        |
| metoprolol succinate/hydrochlorothiazide                     | metoprolol su-hydrochlorothiaz  |
| metoprolol tartrate/hydrochlorothiazide                      | lopressor HCT                   |
| metoprolol tartrate/hydrochlorothiazide                      | metoprolol ta-hydrochlorothiaz  |
| moexipril HCl/hydrochlorothiazide                            | moexipril-hydrochlorothiazide   |
| moexipril HCl/hydrochlorothiazide                            | uniretic                        |
| nadolol/bendroflumethiazide                                  | corzide                         |
| nadolol/bendroflumethiazide                                  | nadolol-bendroflumethiazide     |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | olmesartan-amlodipin-hcthiazid  |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | tribenzor                       |
| olmesartan medoxomil/hydrochlorothiazide                     | benicar HCT                     |
| olmesartan medoxomil/hydrochlorothiazide                     | olmesartan-hydrochlorothiazide  |
| pamabrom                                                     | diuretic softgels               |
| pamabrom                                                     | diurex max                      |
| propranolol HCl/hydrochlorothiazide                          | propranolol-hydrochlorothiazid  |
| quinapril HCl/hydrochlorothiazide                            | accuretic                       |
| quinapril HCl/hydrochlorothiazide                            | quinapril-hydrochlorothiazide   |
| spironolactone                                               | aldactone                       |
| spironolactone                                               | carospir                        |
| spironolactone                                               | spironolactone                  |
| spironolactone/hydrochlorothiazide                           | aldactazide                     |
| spironolactone/hydrochlorothiazide                           | spironolacton-hydrochlorothiaz  |
| telmisartan/hydrochlorothiazide                              | micardis HCT                    |
| telmisartan/hydrochlorothiazide                              | telmisartan-hydrochlorothiazid  |
| tolvaptan                                                    | samsca                          |
| tolvaptan                                                    | tolvaptan                       |
| torsemide                                                    | demadex                         |
| torsemide                                                    | soaanz                          |
| torsemide                                                    | torsemide                       |
| triamterene                                                  | dyrenium                        |
| triamterene                                                  | triamterene                     |
| triamterene/hydrochlorothiazide                              | dyazide                         |
| triamterene/hydrochlorothiazide                              | maxzide                         |
| triamterene/hydrochlorothiazide                              | maxzide-25mg                    |
| triamterene/hydrochlorothiazide                              | triamterene-hydrochlorothiazid  |
| urea                                                         | ure-na                          |
| urea                                                         | ureapro                         |
| valsartan/hydrochlorothiazide                                | diovan HCT                      |
| valsartan/hydrochlorothiazide                                | valsartan-hydrochlorothiazide   |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                     | Brand Name                              |
|--------------------------------------------------|-----------------------------------------|
| <b>Loop Diuretics</b>                            |                                         |
| bumetanide                                       | bumetanide                              |
| ethacrynate sodium                               | ethacrynate sodium                      |
| ethacrynate sodium                               | sodium edecrin                          |
| ethacrynic acid                                  | edecrin                                 |
| ethacrynic acid                                  | ethacrynic acid                         |
| furosemide                                       | furoscix                                |
| furosemide                                       | furosemide                              |
| furosemide                                       | lasix                                   |
| furosemide in 0.9 % sodium chloride              | furosemide in 0.9 % NaCl                |
| furosemide/dextrose 5 % in water                 | furosemide in dextrose 5 %              |
| torsemide                                        | demadex                                 |
| torsemide                                        | soaanz                                  |
| torsemide                                        | torsemide                               |
| <b>Dipeptidyl Peptidase-4 (DPP-4) Inhibitors</b> |                                         |
| alogliptin                                       | alogliptin and metformin hydrochloride  |
| alogliptin                                       | alogliptin and pioglitazone             |
| alogliptin                                       | kazano                                  |
| alogliptin                                       | oseni                                   |
| alogliptin and metformin hydrochloride           | nesina                                  |
| alogliptin and metformin hydrochloride           | oseni                                   |
| alogliptin and pioglitazone                      | alogliptin and metformin hydrochloride  |
| alogliptin and pioglitazone                      | alogliptin and pioglitazone             |
| alogliptin and pioglitazone                      | kazano                                  |
| alogliptin and pioglitazone                      | nesina                                  |
| alogliptin benzoate                              | alogliptin                              |
| alogliptin benzoate                              | nesina                                  |
| alogliptin benzoate/metformin HCl                | alogliptin-metformin                    |
| alogliptin benzoate/metformin HCl                | kazano                                  |
| alogliptin benzoate/pioglitazone HCl             | alogliptin-pioglitazone                 |
| alogliptin benzoate/pioglitazone HCl             | oseni                                   |
| linagliptin                                      | tradjenta                               |
| linagliptin and metformin hydrochloride          | glyxambi                                |
| linagliptin and metformin hydrochloride          | jentaduetto XR                          |
| linagliptin and metformin hydrochloride          | tradjenta                               |
| linagliptin/metformin HCl                        | jentaduetto                             |
| linagliptin/metformin HCl                        | jentaduetto XR                          |
| saxagliptin                                      | onglyza                                 |
| saxagliptin                                      | saxagliptin                             |
| saxagliptin HCl                                  | onglyza                                 |
| saxagliptin HCl                                  | saxagliptin                             |
| saxagliptin HCl/metformin HCl                    | kombiglyze XR                           |
| saxagliptin HCl/metformin HCl                    | saxagliptin-metformin                   |
| sitagliptin                                      | januvia                                 |
| sitagliptin                                      | sitagliptin                             |
| sitagliptin                                      | zituvio                                 |
| sitagliptin and metformin hydrochloride          | janumet                                 |
| sitagliptin and metformin hydrochloride          | sitagliptin and metformin hydrochloride |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                            | Brand Name                 |
|-------------------------------------------------------------------------|----------------------------|
| sitagliptin and metformin hydrochloride                                 | zituvimet                  |
| sitagliptin and metformin hydrochloride                                 | zituvimet XR               |
| sitagliptin hydrochloride oral                                          | januvia                    |
| sitagliptin phosphate                                                   | januvia                    |
| sitagliptin phosphate/metformin HCl                                     | janumet                    |
| sitagliptin phosphate/metformin HCl                                     | janumet XR                 |
| sitagliptin phosphate/simvastatin                                       | juvisync                   |
| <b>Frailty Indicators (Loop Diuretics, Digoxin, Dementia Therapies)</b> |                            |
| aducanumab-avwa                                                         | aduhelm                    |
| benzgalantamine                                                         | zunveyl                    |
| bumetanide                                                              | bumetanide                 |
| digoxin                                                                 | digitek                    |
| digoxin                                                                 | digox                      |
| digoxin                                                                 | digoxin                    |
| digoxin                                                                 | digoxin (bulk)             |
| digoxin                                                                 | lanoxin                    |
| digoxin                                                                 | lanoxin pediatric          |
| digoxin, micronized                                                     | digoxin, micronized (bulk) |
| donanemab-azbt                                                          | kisunla                    |
| donepezil HCl                                                           | adlarity                   |
| donepezil HCl                                                           | aricept                    |
| donepezil HCl                                                           | aricept ODT                |
| donepezil HCl                                                           | donepezil                  |
| ethacrynate sodium                                                      | ethacrynate sodium         |
| ethacrynate sodium                                                      | sodium edecrin             |
| ethacrynic acid                                                         | Edecrin                    |
| ethacrynic acid                                                         | ethacrynic acid            |
| furosemide                                                              | furoscix                   |
| furosemide                                                              | furosemide                 |
| furosemide                                                              | lasix                      |
| furosemide in 0.9 % sodium chloride                                     | furosemide in 0.9 % NaCl   |
| furosemide/dextrose 5 % in water                                        | furosemide in dextrose 5 % |
| galantamine HBr                                                         | galantamine                |
| galantamine HBr                                                         | razadyne                   |
| galantamine HBr                                                         | razadyne ER                |
| lecanemab-irmb                                                          | leqembi                    |
| memantine HCl                                                           | memantine                  |
| memantine HCl                                                           | memantine HCl (bulk)       |
| memantine HCl                                                           | namenda                    |
| memantine HCl                                                           | namenda XR                 |
| memantine HCl                                                           | namenda titration pak      |
| memantine HCl/donepezil HCl                                             | memantine-donepezil        |
| memantine HCl/donepezil HCl                                             | namzaric                   |
| rivastigmine                                                            | exelon patch               |
| rivastigmine                                                            | rivastigmine               |
| rivastigmine tartrate                                                   | exelon                     |
| rivastigmine tartrate                                                   | rivastigmine tartrate      |
| torsemide                                                               | demadex                    |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                                                                                    | Brand Name                     |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| torsemide                                                                                                                       | soaanz                         |
| torsemide                                                                                                                       | torsemide                      |
| <b>Glucagon-Like Peptide-1 Receptor Agonist (GLP1-RA), Including Glucose-Dependent Insulinotropic Polypeptide (GIP)/GLP-1RA</b> |                                |
| albiglutide                                                                                                                     | tanzeum                        |
| dulaglutide                                                                                                                     | trulicity                      |
| exenatide                                                                                                                       | byetta                         |
| exenatide                                                                                                                       | exenatide                      |
| exenatide microspheres                                                                                                          | bydureon                       |
| exenatide microspheres                                                                                                          | bydureon bcise                 |
| insulin degludec/liraglutide                                                                                                    | xultophy 100/3.6               |
| insulin glargine and lixisenatide                                                                                               | soliqua 100/33                 |
| insulin glargine,human recombinant analog/lixisenatide                                                                          | soliqua 100/33                 |
| liraglutide                                                                                                                     | liraglutide                    |
| liraglutide                                                                                                                     | saxenda                        |
| liraglutide                                                                                                                     | victoza                        |
| liraglutide                                                                                                                     | victoza 2-pak                  |
| liraglutide                                                                                                                     | victoza 3-pak                  |
| lixisenatide                                                                                                                    | adlyxin                        |
| oral semaglutide                                                                                                                | rybelsus                       |
| semaglutide                                                                                                                     | ozempic                        |
| semaglutide                                                                                                                     | rybelsus                       |
| semaglutide                                                                                                                     | semaglutide                    |
| semaglutide                                                                                                                     | wegovy                         |
| tirzepatide                                                                                                                     | mounjaro                       |
| tirzepatide                                                                                                                     | tirzepatide                    |
| tirzepatide                                                                                                                     | zepbound                       |
| <b>Influenza Vaccine</b>                                                                                                        |                                |
| Influenza Virus Vaccine Trivalent-Split 2011-2012/PF                                                                            | fluzone high-dose 2011-12 (PF) |
| Influenza Virus Vaccine Trivalent-Split 2011-2012/PF                                                                            | fluzone intraderm 2011-12 (PF) |
| flu vaccine qs 2016-2017(4 years and older)cell derived/PF                                                                      | flucelvax quad 2016-2017 (PF)  |
| flu vaccine quad 2017-2018(4 years and older)cell derived/PF                                                                    | flucelvax quad 2017-2018 (PF)  |
| flu vaccine quad 2018-2019(4 years and older)cell derived/PF                                                                    | EZ flu 2018-19(flucelvax)(PF)  |
| flu vaccine quad 2018-2019(4 years and older)cell derived/PF                                                                    | flucelvax quad 2018-2019 (PF)  |
| flu vaccine quad 2019-2020(4 years and older)cell derived/PF                                                                    | flucelvax quad 2019-2020 (PF)  |
| flu vaccine quad 2020-2021(4 years and older)cell derived/PF                                                                    | flucelvax quad 2020-2021 (PF)  |
| flu vaccine quad 2021-2022(6 month and older)cell derived/PF                                                                    | flucelvax quad 2021-2022 (PF)  |
| flu vaccine quad 2022-2023(6 month and older)cell derived/PF                                                                    | flucelvax quad 2022-2023 (PF)  |
| flu vaccine quad 2023-2024(6 month and older)cell derived/PF                                                                    | flucelvax quad 2023-2024 (PF)  |
| flu vaccine quadriv 2017-2018(4 years and older)cell derived                                                                    | flucelvax quad 2017-2018       |
| flu vaccine quadriv 2018-2019(4 years and older)cell derived                                                                    | flucelvax quad 2018-2019       |
| flu vaccine quadriv 2019-2020(4 years and older)cell derived                                                                    | flucelvax quad 2019-2020       |
| flu vaccine quadriv 2020-2021(4 years and older)cell derived                                                                    | flucelvax quad 2020-2021       |
| flu vaccine quadriv 2021-2022(6 month and older)cell derived                                                                    | flucelvax quad 2021-2022       |
| flu vaccine quadriv 2022-2023(6 month and older)cell derived                                                                    | flucelvax quad 2022-2023       |
| flu vaccine quadriv 2023-2024(6 month and older)cell derived                                                                    | flucelvax quad 2023-2024       |
| flu vaccine tri 2024-2025(6 month and older)cell derived/PF                                                                     | flucelvax triv 2024-2025 (PF)  |
| flu vaccine triv 2024-2025(6 month and older)cell derived                                                                       | flucelvax triv 2024-2025       |
| influenza A (H5N1) vaccine mvs (6 mos up)/adjuvant MF59C.1                                                                      | audenz (national stockpile)    |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| influenza A (H5N1) vaccine mvs (6mos up)/adjuvant MF59C.1/PF | audenz(PF)(national stockpile) |
| influenza vaccine quadrivalent 2020-21 (65 yr up)/MF59C.1/PF | fluad quad 2020-21(65y up)(PF) |
| influenza vaccine quadrivalent 2021-22 (65 yr up)/MF59C.1/PF | fluad quad 2021-22(65y up)(PF) |
| influenza vaccine quadrivalent 2022-23 (65 yr up)/MF59C.1/PF | fluad quad 2022-23(65y up)(PF) |
| influenza vaccine quadrivalent 2023-24 (65 yr up)/MF59C.1/PF | fluad quad 2023-24(65y up)(PF) |
| influenza vaccine quadrivalent live 2014-2015 (2 yrs-49 yrs) | flumist quad 2014-2015         |
| influenza vaccine quadrivalent live 2015-2016 (2 yrs-49 yrs) | flumist quad 2015-2016         |
| influenza vaccine quadrivalent live 2016-2017 (2 yrs-49 yrs) | flumist quad 2016-2017         |
| influenza vaccine quadrivalent live 2017-2018 (2 yrs-49 yrs) | flumist quad 2017-2018         |
| influenza vaccine quadrivalent live 2018-2019 (2 yrs-49 yrs) | flumist quad 2018-2019         |
| influenza vaccine quadrivalent live 2019-2020 (2 yrs-49 yrs) | flumist quad 2019-2020         |
| influenza vaccine quadrivalent live 2020-2021 (2 yrs-49 yrs) | flumist quad 2020-2021         |
| influenza vaccine quadrivalent live 2021-2022 (2 yrs-49 yrs) | flumist quad 2021-2022         |
| influenza vaccine quadrivalent live 2022-2023 (2 yrs-49 yrs) | flumist quad 2022-2023         |
| influenza vaccine quadrivalent live 2023-2024 (2 yrs-49 yrs) | flumist quad 2023-2024         |
| influenza vaccine tri-splt 2012-13(18 yr +)cell derived/PF   | flucelvax (PF)                 |
| influenza vaccine trivalent 2015-16(18 yr,up)cell derived/PF | EZ flu 2015-16(flucelvax)(PF)  |
| influenza vaccine trivalent 2015-16(18 yr,up)cell derived/PF | flucelvax 2015-2016 (PF)       |
| influenza vaccine trivalent 2024-2025 (65 yr up)/MF59C.1/PF  | fluad triv 2024-25(65y up)(PF) |
| influenza vaccine trivalent live 2024-2025 (2 yrs-49 yrs)    | flumist trivalent 2024-2025    |
| influenza vaccine tv split 2013-14(18 yr,up) cell derived/PF | flucelvax 2013-2014 (PF)       |
| influenza vaccine tv split 2014-15 (18 yr,up)cell derived/PF | flucelvax 2014-2015 (PF)       |
| influenza vaccine tv split 2014-15 (18 yr,up)cell derived/PF | single use EZ flu 2014-15(PF)  |
| influenza vaccine tvs 2015-16 (65 yr,up)/adjuvant MF59C.1/PF | fluad 2015-16(65yr+)(PF)       |
| influenza vaccine tvs 2016-17 (65 yr up)/adjuvant MF59C.1/PF | fluad 2016-2017 (65 yr up)(PF) |
| influenza vaccine tvs 2017-18 (65 yr up)/adjuvant MF59C.1/PF | fluad 2017-2018 (65 yr up)(PF) |
| influenza vaccine tvs 2018-19 (65 yr up)/adjuvant MF59C.1/PF | fluad 2018-2019 (65 yr up)(PF) |
| influenza vaccine tvs 2019-20 (65 yr up)/adjuvant MF59C.1/PF | fluad 2019-2020 (65 yr up)(PF) |
| influenza vaccine tvs 2020-21 (65 yr up)/adjuvant MF59C.1/PF | fluad 2020-2021 (65 yr up)(PF) |
| influenza virus vacc quad 2020 south hem (6 mos and up)      | fluzone quad southern hem 2020 |
| influenza virus vacc quad 2020 south hem (6 mos and up)/PF   | fluzone quad south hem2020(PF) |
| influenza virus vacc quad 2021 south hem (6 months and up)   | fluzone quad southern hem 2021 |
| influenza virus vacc quad 2021 south hem (6 mos and up)/PF   | fluzone quad south hem2021(PF) |
| influenza virus vacc quad 2024 south hem (6 months and up)   | fluzone quad southern hem 2024 |
| influenza virus vacc quad 2024 south hem (6 mos and up)/PF   | fluzone quad south hem2024(PF) |
| influenza virus vaccine 2011-2012 (6 mos-35 mos)/PF          | fluzone 2011-2012 (PF)         |
| influenza virus vaccine 2012-2013 (6 mos-35 mos)/PF          | fluzone pedi 2012 -2013 (PF)   |
| influenza virus vaccine quad vs 2013-14(36 mos and older)/PF | fluarix quad 2013-2014 (PF)    |
| influenza virus vaccine quad vs 2013-14(36 mos and older)/PF | fluzone quad 2013-2014 (PF)    |
| influenza virus vaccine quad vs 2013-14(36 mos and older)/PF | single use EZ flu 2013-14 (PF) |
| influenza virus vaccine quad vs 2013-2014 (36 mos and older) | flulaval quad 2013-2014        |
| influenza virus vaccine quad vs 2013-2014 (6 mos-35 mos)/PF  | fluzone quad pedi 2013-14 (PF) |
| influenza virus vaccine quad vs 2014-2015 (36 mos and older) | flulaval quad 2014-2015        |
| influenza virus vaccine quadrival 2014-15 (6 mos-35 mos)/PF  | fluzone quad pedi 2014-15 (PF) |
| influenza virus vaccine quadrival 2014-15(36 mos, older)/PF  | fluarix quad 2014-2015 (PF)    |
| influenza virus vaccine quadrival 2014-15(36 mos, older)/PF  | flulaval quad 2014-2015 (PF)   |
| influenza virus vaccine quadrival 2014-15(36 mos, older)/PF  | fluzone quad 2014-2015 (PF)    |
| influenza virus vaccine quadrival 2014-2015(6 mos and older) | fluzone quad 2014-2015         |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| influenza virus vaccine quadrival 2015-16 (6 mos-35 mos)/PF  | fluzone quad pedi 2015-16 (PF) |
| influenza virus vaccine quadrival 2015-2016 (36 mos, older)  | flulaval quad 2015-2016        |
| influenza virus vaccine quadrival 2016-17 (6 mos-35 mos)/PF  | EZ flu16-17(fluzon qd ped)(PF) |
| influenza virus vaccine quadrival 2016-17 (6 mos-35 mos)/PF  | fluzone quad pedi 2016-17 (PF) |
| influenza virus vaccine quadrival 2017-18 (6 mos-35 mos)/PF  | fluzone quad pedi 2017-18 (PF) |
| influenza virus vaccine quadrival 2018-19 (6 mos-35 mos)/PF  | fluzone quad pedi 2018-19 (PF) |
| influenza virus vaccine quadrival 2018-2019(6 mos and up)/PF | afluria quad 2018-2019 (PF)    |
| influenza virus vaccine quadrival 2018-2019(6 mos and up)/PF | fluarix quad 2018-2019 (PF)    |
| influenza virus vaccine quadrival 2018-2019(6 mos and up)/PF | flulaval quad 2018-2019 (PF)   |
| influenza virus vaccine quadrival 2019-20 (6 mos-35 mos)/PF  | afluria qd 2019-20(6-35mo)(PF) |
| influenza virus vaccine quadrival 2019-20 (6 mos-35 mos)/PF  | fluzone quad pedi 2019-20 (PF) |
| influenza virus vaccine quadrival 2019-2020(6 mos and up)/PF | fluarix quad 2019-2020 (PF)    |
| influenza virus vaccine quadrival 2019-2020(6 mos and up)/PF | flulaval quad 2019-2020 (PF)   |
| influenza virus vaccine quadrival 2019-2020(6 mos and up)/PF | fluzone quad 2019-2020 (PF)    |
| influenza virus vaccine quadrival 2020-2021(6 mos and up)/PF | fluarix quad 2020-2021 (PF)    |
| influenza virus vaccine quadrival 2020-2021(6 mos and up)/PF | flulaval quad 2020-2021 (PF)   |
| influenza virus vaccine quadrival 2020-2021(6 mos and up)/PF | fluzone quad 2020-2021 (PF)    |
| influenza virus vaccine quadrival 2020-21 (6 mos-35 mos)/PF  | afluria qd 2020-21(6-35mo)(PF) |
| influenza virus vaccine quadrival 2021-2022(6 mos and up)/PF | fluarix quad 2021-2022 (PF)    |
| influenza virus vaccine quadrival 2021-2022(6 mos and up)/PF | flulaval quad 2021-2022 (PF)   |
| influenza virus vaccine quadrival 2021-2022(6 mos and up)/PF | fluzone quad 2021-2022 (PF)    |
| influenza virus vaccine quadrival 2021-22 (6 mos-35 mos)/PF  | afluria qd 2021-22(6-35mo)(PF) |
| influenza virus vaccine quadrival 2022-2023(6 mos and up)/PF | fluarix quad 2022-2023 (PF)    |
| influenza virus vaccine quadrival 2022-2023(6 mos and up)/PF | flulaval quad 2022-2023 (PF)   |
| influenza virus vaccine quadrival 2022-2023(6 mos and up)/PF | fluzone quad 2022-2023 (PF)    |
| influenza virus vaccine quadrival 2023-2024(6 mos and up)/PF | fluarix quad 2023-2024 (PF)    |
| influenza virus vaccine quadrival 2023-2024(6 mos and up)/PF | flulaval quad 2023-2024 (PF)   |
| influenza virus vaccine quadrival 2023-2024(6 mos and up)/PF | fluzone quad 2023-2024 (PF)    |
| influenza virus vaccine quadrival split 2020-21(65 yr up)/PF | fluzone highdose quad 20-21 PF |
| influenza virus vaccine quadrival split 2021-22(65 yr up)/PF | fluzone highdose quad 21-22 PF |
| influenza virus vaccine quadrival split 2022-23(65 yr up)/PF | fluzone highdose quad 22-23 PF |
| influenza virus vaccine quadrival split 2023-24(65 yr up)/PF | fluzone highdose quad 23-24 PF |
| influenza virus vaccine quadrival split2015-16(36 mos,up)/PF | fluarix quad 2015-2016 (PF)    |
| influenza virus vaccine quadrival split2015-16(36 mos,up)/PF | fluzone quad 2015-2016 (PF)    |
| influenza virus vaccine quadrivalent 2015-16(18yrs-64yrs)/PF | fluzone intraderm quad 2015-16 |
| influenza virus vaccine quadrivalent 2016-17(18 year and up) | afluria quad 2016-2017         |
| influenza virus vaccine quadrivalent 2016-17(18yr and up)/PF | afluria quad 2016-2017 (PF)    |
| influenza virus vaccine quadrivalent 2016-17(18yrs-64yrs)/PF | fluzone intraderm quad 2016-17 |
| influenza virus vaccine quadrivalent 2017-18 (36 mos up)/PF  | fluzone quad 2017-2018 (PF)    |
| influenza virus vaccine quadrivalent 2017-18 (5 year and up) | afluria quad 2017-2018         |
| influenza virus vaccine quadrivalent 2017-18 (6 mos and up)  | flulaval quad 2017-2018        |
| influenza virus vaccine quadrivalent 2017-18 (6 mos and up)  | fluzone quad 2017-2018         |
| influenza virus vaccine quadrivalent 2017-18(18yrs-64yrs)/PF | fluzone intraderm quad 2017-18 |
| influenza virus vaccine quadrivalent 2017-18(5 yr and up)/PF | afluria quad 2017-2018 (PF)    |
| influenza virus vaccine quadrivalent 2018-19 (36 mos up)/PF  | fluzone quad 2018-2019 (PF)    |
| influenza virus vaccine quadrivalent 2018-19 (6 mos and up)  | afluria quad 2018-2019         |
| influenza virus vaccine quadrivalent 2018-19 (6 mos and up)  | flulaval quad 2018-2019        |
| influenza virus vaccine quadrivalent 2018-19 (6 mos and up)  | fluzone quad 2018-2019         |



# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                  | Brand Name                     |
|---------------------------------------------------------------|--------------------------------|
| influenza virus vaccine quadrivalent 2019-20 (36 mos up)/PF   | afluria qd 2019-20(3yr up)(PF) |
| influenza virus vaccine quadrivalent 2019-20 (6 mos and up)   | afluria quad 2019-20(6mo up)   |
| influenza virus vaccine quadrivalent 2019-20 (6 mos and up)   | flulaval quad 2019-2020        |
| influenza virus vaccine quadrivalent 2019-20 (6 mos and up)   | fluzone quad 2019-2020         |
| influenza virus vaccine quadrivalent 2020-21 (36 mos up)/PF   | afluria qd 2020-21(3yr up)(PF) |
| influenza virus vaccine quadrivalent 2020-21 (6 mos and up)   | afluria quad 2020-2021(6mo up) |
| influenza virus vaccine quadrivalent 2020-21 (6 mos and up)   | fluzone quad 2020-2021         |
| influenza virus vaccine quadrivalent 2021-22 (36 mos up)/PF   | afluria qd 2021-22(3yr up)(PF) |
| influenza virus vaccine quadrivalent 2021-22 (6 mos and up)   | afluria quad 2021-2022(6mo up) |
| influenza virus vaccine quadrivalent 2021-22 (6 mos and up)   | fluzone quad 2021-2022         |
| influenza virus vaccine quadrivalent 2022-23 (36 mos up)/PF   | afluria qd 2022-23(3yr up)(PF) |
| influenza virus vaccine quadrivalent 2022-23 (6 mos and up)   | afluria quad 2022-2023(6mo up) |
| influenza virus vaccine quadrivalent 2022-23 (6 mos and up)   | fluzone quad 2022-2023         |
| influenza virus vaccine quadrivalent 2023-24 (36 mos up)/PF   | afluria qd 2023-24(3yr up)(PF) |
| influenza virus vaccine quadrivalent 2023-24 (6 mos and up)   | afluria quad 2023-2024(6mo up) |
| influenza virus vaccine quadrivalent 2023-24 (6 mos and up)   | fluzone quad 2023-2024         |
| influenza virus vaccine quadval split 2016-17(36 mos up)/PF   | fluarix quad 2016-2017 (PF)    |
| influenza virus vaccine quadval split 2016-17(36 mos up)/PF   | fluzone quad 2016-2017 (PF)    |
| influenza virus vaccine qv 2017-18(18 yrs and older)rcmb/PF   | flublok quad 2017-2018 (PF)    |
| influenza virus vaccine qv 2018-19(18 yrs and older)rcmb/PF   | flublok quad 2018-2019 (PF)    |
| influenza virus vaccine qv 2019-20(18 yrs and older)rcmb/PF   | flublok quad 2019-2020 (PF)    |
| influenza virus vaccine qv 2020-21(18 yrs and older)rcmb/PF   | flublok quad 2020-2021 (PF)    |
| influenza virus vaccine qv 2021-22(18 yrs and older)rcmb/PF   | flublok quad 2021-2022 (PF)    |
| influenza virus vaccine qv 2022-23(18 yrs and older)rcmb/PF   | flublok quad 2022-2023 (PF)    |
| influenza virus vaccine qv 2023-24(18 yrs and older)rcmb/PF   | flublok quad 2023-2024 (PF)    |
| influenza virus vaccine qval live 2013-2014 (2 yrs-49 yrs)    | flumist 2013-2014              |
| influenza virus vaccine qvalsplitt 2015-2016(6 mos and older) | fluzone quad 2015-2016         |
| influenza virus vaccine qvalsplitt 2016-2017(6 mos and older) | flulaval quad 2016-2017        |
| influenza virus vaccine qvalsplitt 2016-2017(6 mos and older) | fluzone quad 2016-2017         |
| influenza virus vaccine qvalsplitt 2016-2017(6 mos and up)/PF | flulaval quad 2016-2017 (PF)   |
| influenza virus vaccine qvalsplitt 2017-2018(6 mos and up)/PF | fluarix quad 2017-2018 (PF)    |
| influenza virus vaccine qvalsplitt 2017-2018(6 mos and up)/PF | flulaval quad 2017-2018 (PF)   |
| influenza virus vaccine tri-split 2013-14 (6 mos and older)   | fluzone 2013-2014              |
| influenza virus vaccine trival 2014-15 (36 mos and older)/PF  | fluarix 2014-2015 (PF)         |
| influenza virus vaccine trival 2014-15 (36 mos and older)/PF  | flulaval 2014-2015 (PF)        |
| influenza virus vaccine trival 2014-15 (36 mos and older)/PF  | fluzone 2014-2015 (PF)         |
| influenza virus vaccine trival 2016-2017 (4yr and older)/PF   | EZ flu 2016-17 (fluvirin) (PF) |
| influenza virus vaccine trival 2016-2017 (4yr and older)/PF   | fluvirin 2016-2017 (PF)        |
| influenza virus vaccine trival 2017-2018 (4yr and older)/PF   | fluvirin 2017-2018 (PF)        |
| influenza virus vaccine trival split 2016-2017(65 yr up)/PF   | fluzone high-dose 2016-17 (PF) |
| influenza virus vaccine trival split 2017-2018(65 yr up)/PF   | fluzone high-dose 2017-18 (PF) |
| influenza virus vaccine trival split 2018-2019(65 yr up)/PF   | fluzone high-dose 2018-19 (PF) |
| influenza virus vaccine trival split 2019-2020(65 yr up)/PF   | fluzone high-dose 2019-20 (PF) |
| influenza virus vaccine trival split 2024-2025(65 yr up)/PF   | fluzone high-dose triv 24-25   |
| influenza virus vaccine trival split 2024-25 (36 mos up)/PF   | afluria triv 2024-2025 (PF)    |
| influenza virus vaccine trivalent 2011-2012 (live)            | flumist 2011-2012              |
| influenza virus vaccine trivalent 2014-15 (18 yrs-64 yrs)/PF  | fluzone intraderm 2014-15 (PF) |
| influenza virus vaccine trivalent 2014-15 (36 mos and older)  | flulaval 2014-2015             |



# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                  | Brand Name                     |
|---------------------------------------------------------------|--------------------------------|
| influenza virus vaccine trivalent 2014-15 (6 mos and older)   | fluzone 2014-2015              |
| influenza virus vaccine trivalent 2014-2015 (4 yr and older)  | fluvirin 2014-2015             |
| influenza virus vaccine trivalent 2014-2015 (5 yr and older)  | afluria 2014-2015              |
| influenza virus vaccine trivalent 2014-2015 (65 yr, older)/PF | fluzone high-dose 2014-15 (PF) |
| influenza virus vaccine trivalent 2015-16 (6 mos and older)   | fluzone 2015-2016              |
| influenza virus vaccine trivalent 2015-2016 (4 yr and older)  | fluvirin 2015-2016             |
| influenza virus vaccine trivalent 2015-2016 (4 yr, older)/PF  | EZ flu 2015-16 (fluvirin) (PF) |
| influenza virus vaccine trivalent 2015-2016 (4 yr, older)/PF  | fluvirin 2015-2016 (PF)        |
| influenza virus vaccine trivalent 2015-2016 (5 yr and older)  | afluria 2015-2016              |
| influenza virus vaccine trivalent 2016-2017 (4 yr and older)  | fluvirin 2016-2017             |
| influenza virus vaccine trivalent 2016-2017 (5 years up)/PF   | EZ flu 2016-17 (afluria) (PF)  |
| influenza virus vaccine trivalent 2016-2017 (5 years up)/PF   | afluria 2016-2017 (PF)         |
| influenza virus vaccine trivalent 2016-2017 (5 yr and older)  | afluria 2016-2017              |
| influenza virus vaccine trivalent 2017-2018 (4 yr and older)  | fluvirin 2017-2018             |
| influenza virus vaccine trivalent 2017-2018 (5 years up)/PF   | afluria 2017-2018 (PF)         |
| influenza virus vaccine trivalent 2017-2018 (5 yr and older)  | afluria 2017-2018              |
| influenza virus vaccine trivalent 2018-19 (6 mos and older)   | afluria 2018-2019              |
| influenza virus vaccine trivalent 2024-25 (6 mos and older)   | afluria triv 2024-2025         |
| influenza virus vaccine trivalent 2024-25 (6 mos and older)   | fluzone triv 2024-2025         |
| influenza virus vaccine trivalent split 2015-16(65 yr, up)/PF | fluzone high-dose 2015-16 (PF) |
| influenza virus vaccine trivalent-split 2012-2013 (65yr+)/PF  | fluzone high-dose 2012-13 (PF) |
| influenza virus vaccine trivalent 2014-2015 (4 yr, older)/PF  | fluvirin 2014-2015 (PF)        |
| influenza virus vaccine trivalent 2014-2015 (5 yr, older)/PF  | afluria 2014-2015 (PF)         |
| influenza virus vaccine trivalent 2015-2016 (5 yr, older)/PF  | afluria 2015-2016 (PF)         |
| influenza virus vaccine tv 2012-2013 (18 to 49 yrs)recomb/PF  | flublok 2012-2013 (PF)         |
| influenza virus vaccine tv 2013-2014 (18 to 49 yrs)recomb/PF  | flublok 2013-2014 (PF)         |
| influenza virus vaccine tv 2014-2015(18 yrs, older)recomb/PF  | flublok 2014-2015 (PF)         |
| influenza virus vaccine tv 2015-2016(18 yrs, older)recomb/PF  | flublok 2015-2016 (PF)         |
| influenza virus vaccine tv 2016-17(18 yrs and older)rcmb/PF   | flublok 2016-2017 (PF)         |
| influenza virus vaccine tv 2017-18(18 yrs and older)rcmb/PF   | flublok 2017-2018 (PF)         |
| influenza virus vaccine tv 2024-25(18 yrs and older)rcmb/PF   | flublok triv 2024-2025 (PF)    |
| influenza virus vaccine tv live 2012-2013 (2 yrs-49 yrs)      | flumist 2012-2013              |
| influenza virus vaccine tv split 2011-2012 (18 yr & older)    | flulaval 2011-2012             |
| influenza virus vaccine tv split 2011-2012 (3 yr & older)/PF  | fluarix 2011-2012 (PF)         |
| influenza virus vaccine tv split 2011-2012 (4 yr & older)     | fluvirin 2011-2012             |
| influenza virus vaccine tv split 2011-2012 (4 yr & older)/PF  | fluvirin 2011-2012 (PF)        |
| influenza virus vaccine tv split 2011-2012 (6 mos and older)  | fluzone 2011-2012              |
| influenza virus vaccine tv split 2011-2012 (9 yr & older)     | afluria 2011-2012              |
| influenza virus vaccine tv split 2011-2012 (9 yr & older)/PF  | afluria 2011-2012 (PF)         |
| influenza virus vaccine tv split 2012-2013 (18 yr & older)    | flulaval 2012-2013             |
| influenza virus vaccine tv split 2012-2013 (3 yr & older)/PF  | fluarix 2012-2013 (PF)         |
| influenza virus vaccine tv split 2012-2013 (4 yr & older)     | fluvirin 2012-2013             |
| influenza virus vaccine tv split 2012-2013 (4 yr & older)     | physicians EZ use flu 2012-13  |
| influenza virus vaccine tv split 2012-2013 (4 yr & older)/PF  | fluvirin 2012-2013 (PF)        |
| influenza virus vaccine tv split 2012-2013 (4 yr & older)/PF  | single use EZ flu 2012-13 (PF) |
| influenza virus vaccine tv split 2012-2013 (5 yr & older)     | afluria 2012-2013              |
| influenza virus vaccine tv split 2012-2013 (5 yr & older)/PF  | afluria 2012-2013 (PF)         |
| influenza virus vaccine tv split 2012-2013 (6 mos and older)  | fluzone 2012-2013              |

# Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

| Generic Name                                                 | Brand Name                      |
|--------------------------------------------------------------|---------------------------------|
| influenza virus vaccine tv split 2013-14 (5 yr and older)/PF | afluria 2013-2014 (PF)          |
| influenza virus vaccine tv split 2013-2014 (4 yr and older)  | fluvirin 2013-2014              |
| influenza virus vaccine tv split 2013-2014 (4 yr and up)/PF  | fluvirin 2013-2014 (PF)         |
| influenza virus vaccine tv split 2013-2014 (4 yr and up)/PF  | single use EZ flu 2013-14 (PF)  |
| influenza virus vaccine tv split 2013-2014 (5 yr and older)  | afluria 2013-2014               |
| influenza virus vaccine tv-sp 2011-12 (36 mos and older)/PF  | fluzone 2011-2012 (PF)          |
| influenza virus vaccine tvs 2012-2013 (18 yrs-64 yrs)/PF     | fluzone intraderm 2012-13 (PF)  |
| influenza virus vaccine tvs 2012-2013 (36 mos and older)/PF  | fluzone 2012-2013 (PF)          |
| influenza virus vaccine tvs 2013-2014 (18 yrs-64 yrs)/PF     | fluzone intraderm 2013-14 (PF)  |
| influenza virus vaccine tvs 2013-2014 (36 mos and older)     | flulaval 2013-2014              |
| influenza virus vaccine tvs 2013-2014 (36 mos and older)/PF  | fluarix 2013-2014 (PF)          |
| influenza virus vaccine tvs 2013-2014 (36 mos and older)/PF  | fluzone 2013-2014 (PF)          |
| influenza virus vaccine tvs 2013-2014 (6 mos-35 mos)/PF      | fluzone pedi 2013-2014 (PF)     |
| influenza virus vaccine tvs 2013-2014 (65 yr and up)/PF      | fluzone high-dose 2013-14 (PF)  |
| influenza virus vaccine tvs 2018-2019(6 months and older)/PF | afluria 2018-2019 (PF)          |
| influenza virus vaccine tvs 2024-2025(6 months and older)/PF | fluarix triv 2024-2025 (PF)     |
| influenza virus vaccine tvs 2024-2025(6 months and older)/PF | flulaval triv 2024-2025 (PF)    |
| influenza virus vaccine tvs 2024-2025(6 months and older)/PF | fluzone triv 2024-2025 (PF)     |
| <b>Any Insulin</b>                                           |                                 |
| insulin NPH human isophane                                   | humulin n nph insulin kwikpen   |
| insulin NPH human isophane                                   | humulin n nph u-100 insulin     |
| insulin NPH human isophane                                   | humulin n pen                   |
| insulin NPH human isophane                                   | novolin n flexpen               |
| insulin NPH human isophane                                   | novolin n nph u-100 insulin     |
| insulin NPH human isophane/insulin regular, human            | humulin 50/50                   |
| insulin NPH human isophane/insulin regular, human            | humulin 70/30 insulin pen       |
| insulin NPH human isophane/insulin regular, human            | humulin 70/30 u-100 insulin     |
| insulin NPH human isophane/insulin regular, human            | humulin 70/30 u-100 kwikpen     |
| insulin NPH human isophane/insulin regular, human            | novolin 70-30 flexpen u-100     |
| insulin NPH human isophane/insulin regular, human            | novolin 70/30 innolet insulin   |
| insulin NPH human isophane/insulin regular, human            | novolin 70/30 penfill           |
| insulin NPH human isophane/insulin regular, human            | novolin 70/30 u-100 insulin     |
| insulin aspart                                               | insulin aspart u-100            |
| insulin aspart                                               | novolog flexpen u-100 insulin   |
| insulin aspart                                               | novolog penfill u-100 insulin   |
| insulin aspart                                               | novolog u-100 insulin aspart    |
| insulin aspart (niacinamide)                                 | fiasp flextouch u-100 insulin   |
| insulin aspart (niacinamide)                                 | fiasp penfill u-100 insulin     |
| insulin aspart (niacinamide)                                 | fiasp u-100 insulin             |
| insulin aspart (niacinamide)/pump cartridge                  | fiasp pumpcart                  |
| insulin aspart protamine human/insulin aspart                | insulin asp prt-insulin aspart  |
| insulin aspart protamine human/insulin aspart                | novolog mix 70-30 u-100 insulin |
| insulin aspart protamine human/insulin aspart                | novolog mix 70-30flexpen u-100  |
| insulin degludec                                             | insulin degludec                |
| insulin degludec                                             | tresiba flextouch u-100         |
| insulin degludec                                             | tresiba flextouch u-200         |
| insulin degludec                                             | tresiba u-100 insulin           |
| insulin degludec/liraglutide                                 | xultophy 100/3.6                |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                           | Brand Name                      |
|--------------------------------------------------------|---------------------------------|
| insulin detemir                                        | levemir flexpen                 |
| insulin detemir                                        | levemir flextouch u100 insulin  |
| insulin detemir                                        | levemir u-100 insulin           |
| insulin glargine and lixisenatide                      | soliqua 100/33                  |
| insulin glargine,human recombinant analog              | basaglar kwikpen u-100 insulin  |
| insulin glargine,human recombinant analog              | basaglar tempo pen(u-100)insln  |
| insulin glargine,human recombinant analog              | insulin glargine                |
| insulin glargine,human recombinant analog              | insulin glargine u-300 conc     |
| insulin glargine,human recombinant analog              | lantus solostar u-100 insulin   |
| insulin glargine,human recombinant analog              | lantus u-100 insulin            |
| insulin glargine,human recombinant analog              | semglee pen u-100 insulin       |
| insulin glargine,human recombinant analog              | semglee u-100 insulin           |
| insulin glargine,human recombinant analog              | toujeo max u-300 solostar       |
| insulin glargine,human recombinant analog              | toujeo solostar u-300 insulin   |
| insulin glargine,human recombinant analog/lixisenatide | soliqua 100/33                  |
| insulin glargine-aglr                                  | rezvoglar kwikpen               |
| insulin glargine-yfgn                                  | insulin glargine-yfgn           |
| insulin glargine-yfgn                                  | semglee(insulin glarg-yfgn)pen  |
| insulin glargine-yfgn                                  | semglee(insulin glargine-yfgn)  |
| insulin glulisine                                      | apidra solostar u-100 insulin   |
| insulin glulisine                                      | apidra u-100 insulin            |
| insulin lispro                                         | admelog solostar u-100 insulin  |
| insulin lispro                                         | admelog u-100 insulin lispro    |
| insulin lispro                                         | humalog junior kwikpen u-100    |
| insulin lispro                                         | humalog kwikpen insulin         |
| insulin lispro                                         | humalog tempo pen(u-100)insuln  |
| insulin lispro                                         | humalog u-100 insulin           |
| insulin lispro                                         | insulin lispro                  |
| insulin lispro protamine and insulin lispro            | humalog mix 50-50 insulin u-100 |
| insulin lispro protamine and insulin lispro            | humalog mix 50-50 kwikpen       |
| insulin lispro protamine and insulin lispro            | humalog mix 75-25 kwikpen       |
| insulin lispro protamine and insulin lispro            | humalog mix 75-25(u-100)insuln  |
| insulin lispro protamine and insulin lispro            | insulin lispro protamin-lispro  |
| insulin lispro-aabc                                    | lyumjev kwikpen u-100 insulin   |
| insulin lispro-aabc                                    | lyumjev kwikpen u-200 insulin   |
| insulin lispro-aabc                                    | lyumjev tempo pen(u-100)insuln  |
| insulin lispro-aabc                                    | lyumjev u-100 insulin           |
| insulin regular, human                                 | afrezza                         |
| insulin regular, human                                 | humulin r regular u-100 insulin |
| insulin regular, human                                 | humulin r u-500 (conc) insulin  |
| insulin regular, human                                 | humulin r u-500 (conc) kwikpen  |
| insulin regular, human                                 | novolin r flexpen               |
| insulin regular, human                                 | novolin r regular u100 insulin  |
| insulin regular, human in 0.9 % sodium chloride        | myxredlin                       |
| <b>Long and Intermediate-Acting Insulin</b>            |                                 |
| insulin NPH human isophane                             | humulin n nph insulin kwikpen   |
| insulin NPH human isophane                             | humulin n nph u-100 insulin     |
| insulin NPH human isophane                             | humulin n pen                   |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                           | Brand Name                     |
|--------------------------------------------------------|--------------------------------|
| insulin NPH human isophane                             | novolin n flexpen              |
| insulin NPH human isophane                             | novolin n nph u-100 insulin    |
| insulin NPH human isophane/insulin regular, human      | humulin 70/30 insulin pen      |
| insulin NPH human isophane/insulin regular, human      | humulin 70/30 u-100 insulin    |
| insulin NPH human isophane/insulin regular, human      | humulin 70/30 u-100 kwikpen    |
| insulin NPH human isophane/insulin regular, human      | novolin 70-30 flexpen u-100    |
| insulin NPH human isophane/insulin regular, human      | novolin 70/30 u-100 insulin    |
| insulin degludec                                       | insulin degludec               |
| insulin degludec                                       | tresiba flextouch u-100        |
| insulin degludec                                       | tresiba flextouch u-200        |
| insulin degludec                                       | tresiba u-100 insulin          |
| insulin degludec/liraglutide                           | xultophy 100/3.6               |
| insulin detemir                                        | levemir flexpen                |
| insulin detemir                                        | levemir flextouch u100 insulin |
| insulin detemir                                        | levemir u-100 insulin          |
| insulin glargine and lixisenatide                      | soliqua 100/33                 |
| insulin glargine,human recombinant analog              | basaglar kwikpen u-100 insulin |
| insulin glargine,human recombinant analog              | basaglar tempo pen(u-100)insln |
| insulin glargine,human recombinant analog              | insulin glargine               |
| insulin glargine,human recombinant analog              | insulin glargine u-300 conc    |
| insulin glargine,human recombinant analog              | lantus solostar u-100 insulin  |
| insulin glargine,human recombinant analog              | lantus u-100 insulin           |
| insulin glargine,human recombinant analog              | semglee pen u-100 insulin      |
| insulin glargine,human recombinant analog              | semglee u-100 insulin          |
| insulin glargine,human recombinant analog              | toujeo max u-300 solostar      |
| insulin glargine,human recombinant analog              | toujeo solostar u-300 insulin  |
| insulin glargine,human recombinant analog/lixisenatide | soliqua 100/33                 |
| insulin glargine-aglr                                  | rezvoglar kwikpen              |
| insulin glargine-yfgn                                  | insulin glargine-yfgn          |
| insulin glargine-yfgn                                  | semglee(insulin glarg-yfgn)pen |
| insulin glargine-yfgn                                  | semglee(insulin glargine-yfgn) |
| <b>Short/Rapid-Acting Insulin</b>                      |                                |
| insulin aspart                                         | insulin aspart u-100           |
| insulin aspart                                         | novolog flexpen u-100 insulin  |
| insulin aspart                                         | novolog penfill u-100 insulin  |
| insulin aspart                                         | novolog u-100 insulin aspart   |
| insulin aspart (niacinamide)                           | fiasp flextouch u-100 insulin  |
| insulin aspart (niacinamide)                           | fiasp penfill u-100 insulin    |
| insulin aspart (niacinamide)                           | fiasp u-100 insulin            |
| insulin aspart (niacinamide)/pump cartridge            | fiasp pumpcart                 |
| insulin glulisine                                      | apidra solostar u-100 insulin  |
| insulin glulisine                                      | apidra u-100 insulin           |
| insulin lispro                                         | admelog solostar u-100 insulin |
| insulin lispro                                         | admelog u-100 insulin lispro   |
| insulin lispro                                         | humalog junior kwikpen u-100   |
| insulin lispro                                         | humalog kwikpen insulin        |
| insulin lispro                                         | humalog tempo pen(u-100)insuln |
| insulin lispro                                         | humalog u-100 insulin          |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                      | Brand Name                     |
|---------------------------------------------------|--------------------------------|
| insulin lispro                                    | insulin lispro                 |
| insulin lispro-aabc                               | lyumjev kwikpen u-100 insulin  |
| insulin lispro-aabc                               | lyumjev kwikpen u-200 insulin  |
| insulin lispro-aabc                               | lyumjev tempo pen(u-100)insuln |
| insulin lispro-aabc                               | lyumjev u-100 insulin          |
| insulin regular, human                            | afrezza                        |
| insulin regular, human                            | humulin r regular u-100 insuln |
| insulin regular, human                            | humulin r u-500 (conc) insulin |
| insulin regular, human                            | humulin r u-500 (conc) kwikpen |
| insulin regular, human                            | novolin r flexpen              |
| insulin regular, human                            | novolin r regular u100 insulin |
| insulin regular, human in 0.9 % sodium chloride   | myxredlin                      |
| <b>Combination Insulins</b>                       |                                |
| insulin NPH human isophane/insulin regular, human | humulin 50/50                  |
| insulin NPH human isophane/insulin regular, human | humulin 70/30 insulin pen      |
| insulin NPH human isophane/insulin regular, human | humulin 70/30 u-100 insulin    |
| insulin NPH human isophane/insulin regular, human | humulin 70/30 u-100 kwikpen    |
| insulin NPH human isophane/insulin regular, human | novolin 70-30 flexpen u-100    |
| insulin NPH human isophane/insulin regular, human | novolin 70/30 innolet insulin  |
| insulin NPH human isophane/insulin regular, human | novolin 70/30 penfill          |
| insulin NPH human isophane/insulin regular, human | novolin 70/30 u-100 insulin    |
| insulin aspart protamine human/insulin aspart     | insulin asp prt-insulin aspart |
| insulin aspart protamine human/insulin aspart     | novolog mix 70-30 u-100 insuln |
| insulin aspart protamine human/insulin aspart     | novolog mix 70-30flexpen u-100 |
| insulin lispro protamine and insulin lispro       | humalog mix 50-50 insuln u-100 |
| insulin lispro protamine and insulin lispro       | humalog mix 50-50 kwikpen      |
| insulin lispro protamine and insulin lispro       | humalog mix 75-25 kwikpen      |
| insulin lispro protamine and insulin lispro       | humalog mix 75-25(u-100)insuln |
| insulin lispro protamine and insulin lispro       | insulin lispro protamin-lispro |
| <b>Meglitinides</b>                               |                                |
| nateglinide                                       | nateglinide                    |
| nateglinide                                       | starlix                        |
| repaglinide                                       | prandin                        |
| repaglinide                                       | repaglinide                    |
| repaglinide/metformin HCl                         | prandimet                      |
| repaglinide/metformin HCl                         | repaglinide-metformin          |
| <b>Metformin</b>                                  |                                |
| alogliptin benzoate/metformin HCl                 | alogliptin-metformin           |
| alogliptin benzoate/metformin HCl                 | kazano                         |
| canagliflozin/metformin HCl                       | iinvokamet XR                  |
| canagliflozin/metformin HCl                       | invokamet                      |
| dapagliflozin propanediol/metformin HCl           | dapaglifloz propaned-metformin |
| dapagliflozin propanediol/metformin HCl           | xigduo XR                      |
| empagliflozin/linagliptin/metformin HCl           | trijardy XR                    |
| empagliflozin/metformin HCl                       | synjardy                       |
| empagliflozin/metformin HCl                       | synjardy XR                    |
| ertugliflozin pidolate/metformin HCl              | segluromet                     |
| glipizide/metformin HCl                           | glipizide-metformin            |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                      | Brand Name                     |
|---------------------------------------------------|--------------------------------|
| glyburide/metformin HCl                           | glucovance                     |
| glyburide/metformin HCl                           | glyburide-metformin            |
| linagliptin/metformin HCl                         | jentadueto                     |
| linagliptin/metformin HCl                         | jentadueto XR                  |
| metformin HCl                                     | fortamet                       |
| metformin HCl                                     | glucophage                     |
| metformin HCl                                     | glucophage XR                  |
| metformin HCl                                     | glumetza                       |
| metformin HCl                                     | metformin                      |
| metformin HCl                                     | riomet                         |
| metformin HCl                                     | riomet ER                      |
| metformin HCl/blood sugar diagnostic              | dm2                            |
| pioglitazone HCl/metformin HCl                    | actoplus MET                   |
| pioglitazone HCl/metformin HCl                    | actoplus met XR                |
| pioglitazone HCl/metformin HCl                    | pioglitazone-metformin         |
| repaglinide/metformin HCl                         | prandimet                      |
| repaglinide/metformin HCl                         | repaglinide-metformin          |
| rosiglitazone maleate/metformin HCl               | avandamet                      |
| saxagliptin HCl/metformin HCl                     | kombiglyze XR                  |
| saxagliptin HCl/metformin HCl                     | saxagliptin-metformin          |
| sitagliptin phosphate/metformin HCl               | janumet                        |
| sitagliptin phosphate/metformin HCl               | janumet XR                     |
| sitagliptin/metformin HCl                         | sitagliptin-metformin          |
| sitagliptin/metformin HCl                         | zituvimet                      |
| sitagliptin/metformin HCl                         | zituvimet XR                   |
| <b>Other Diuretics</b>                            |                                |
| aliskiren hemifumarate/hydrochlorothiazide        | tekturna HCT                   |
| amiloride HCl                                     | amiloride                      |
| amiloride HCl                                     | midamor                        |
| amiloride HCl/hydrochlorothiazide                 | amiloride-hydrochlorothiazide  |
| amlodipine besylate/valsartan/hydrochlorothiazide | amlodipine-valsartan-hcthiazid |
| amlodipine besylate/valsartan/hydrochlorothiazide | exforge HCT                    |
| ammonium chloride                                 | ammonium chloride              |
| atenolol/chlorthalidone                           | atenolol-chlorthalidone        |
| atenolol/chlorthalidone                           | tenoretic 100                  |
| atenolol/chlorthalidone                           | tenoretic 50                   |
| azilsartan medoxomil/chlorthalidone               | edarbyclor                     |
| benazepril HCl/hydrochlorothiazide                | benazepril-hydrochlorothiazide |
| benazepril HCl/hydrochlorothiazide                | lotensin HCT                   |
| bisoprolol fumarate/hydrochlorothiazide           | bisoprolol-hydrochlorothiazide |
| bisoprolol fumarate/hydrochlorothiazide           | ziac                           |
| candesartan cilexetil/hydrochlorothiazide         | atacand HCT                    |
| candesartan cilexetil/hydrochlorothiazide         | candesartan-hydrochlorothiazid |
| captopril/hydrochlorothiazide                     | captopril-hydrochlorothiazide  |
| chlorothiazide                                    | chlorothiazide                 |
| chlorothiazide                                    | diuril                         |
| chlorothiazide sodium                             | chlorothiazide sodium          |
| chlorothiazide sodium                             | diuril IV                      |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                 | Brand Name                      |
|--------------------------------------------------------------|---------------------------------|
| chlorthalidone                                               | chlorthalidone                  |
| chlorthalidone                                               | thalitone                       |
| clonidine HCl/chlorthalidone                                 | clorpres                        |
| conivaptan HCl/dextrose 5 % in water                         | vaprisol in 5 % dextrose        |
| dichlorphenamide                                             | dichlorphenamide                |
| enalapril maleate/hydrochlorothiazide                        | enalapril-hydrochlorothiazide   |
| enalapril maleate/hydrochlorothiazide                        | vaseretic                       |
| eplerenone                                                   | eplerenone                      |
| eplerenone                                                   | inspra                          |
| eprosartan mesylate/hydrochlorothiazide                      | teveten HCT                     |
| fosinopril sodium/hydrochlorothiazide                        | fosinopril-hydrochlorothiazide  |
| herbal drugs                                                 | swamp root                      |
| hydrochlorothiazide                                          | hydrochlorothiazide             |
| hydrochlorothiazide                                          | microzide                       |
| indapamide                                                   | indapamide                      |
| irbesartan/hydrochlorothiazide                               | avalide                         |
| irbesartan/hydrochlorothiazide                               | irbesartan-hydrochlorothiazide  |
| lisinopril/hydrochlorothiazide                               | lisinopril-hydrochlorothiazide  |
| lisinopril/hydrochlorothiazide                               | prinzipide                      |
| lisinopril/hydrochlorothiazide                               | zestoretic                      |
| losartan potassium/hydrochlorothiazide                       | hyzaar                          |
| losartan potassium/hydrochlorothiazide                       | losartan-hydrochlorothiazide    |
| methazolamide                                                | methazolamide                   |
| methazolamide                                                | neptazane                       |
| methyclothiazide                                             | methyclothiazide                |
| methyldopa/hydrochlorothiazide                               | methyldopa-hydrochlorothiazide  |
| metolazone                                                   | metolazone                      |
| metolazone                                                   | zaroxolyn                       |
| metoprolol succinate/hydrochlorothiazide                     | duprol                          |
| metoprolol succinate/hydrochlorothiazide                     | metoprolol su-hydrochlorothiaz  |
| metoprolol tartrate/hydrochlorothiazide                      | lopressor HCT                   |
| metoprolol tartrate/hydrochlorothiazide                      | metoprolol ta-hydrochlorothiaz  |
| moexipril HCl/hydrochlorothiazide                            | moexipril-hydrochlorothiazide   |
| moexipril HCl/hydrochlorothiazide                            | uniretic                        |
| nadolol/bendroflumethiazide                                  | corzide                         |
| nadolol/bendroflumethiazide                                  | nadolol-bendroflumethiazide     |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | olmesartan-amlodipin-hcthiiazid |
| olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide | tribenzor                       |
| olmesartan medoxomil/hydrochlorothiazide                     | benicar HCT                     |
| olmesartan medoxomil/hydrochlorothiazide                     | olmesartan-hydrochlorothiazide  |
| pamabrom                                                     | diuretic softgels               |
| pamabrom                                                     | diurex max                      |
| propranolol HCl/hydrochlorothiazide                          | propranolol-hydrochlorothiazid  |
| quinapril HCl/hydrochlorothiazide                            | accuretic                       |
| quinapril HCl/hydrochlorothiazide                            | quinapril-hydrochlorothiazide   |
| spironolactone                                               | aldactone                       |
| spironolactone                                               | carospir                        |
| spironolactone                                               | spironolactone                  |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| spironolactone/hydrochlorothiazide                           | aldactazide                    |
| spironolactone/hydrochlorothiazide                           | spironolacton-hydrochlorothiaz |
| telmisartan/hydrochlorothiazide                              | micardis HCT                   |
| telmisartan/hydrochlorothiazide                              | telmisartan-hydrochlorothiazid |
| tolvaptan                                                    | samsca                         |
| tolvaptan                                                    | tolvaptan                      |
| triamterene                                                  | dyrenium                       |
| triamterene                                                  | triamterene                    |
| triamterene/hydrochlorothiazide                              | dyazide                        |
| triamterene/hydrochlorothiazide                              | maxzide                        |
| triamterene/hydrochlorothiazide                              | maxzide-25mg                   |
| triamterene/hydrochlorothiazide                              | triamterene-hydrochlorothiazid |
| urea                                                         | ure-na                         |
| urea                                                         | ureapro                        |
| valsartan/hydrochlorothiazide                                | diovan HCT                     |
| valsartan/hydrochlorothiazide                                | valsartan-hydrochlorothiazide  |
| <b>Pneumococcal Vaccine</b>                                  |                                |
| pneumococcal 13-valent conjugate vaccine (Diphtheria crm)/PF | prevnar 13 (PF)                |
| pneumococcal 15-valent conjugate vaccine (Diphtheria crm)/PF | vaxneuvance (PF)               |
| pneumococcal 20-valent conjugate vaccine (Diphtheria crm)/PF | prevnar 20 (PF)                |
| pneumococcal 21-valent conjugate vaccine (Diphtheria crm)/PF | capvaxive                      |
| pneumococcal 23-valent polysaccharide vaccine                | pneumovax-23                   |
| <b>Preventive Healthcare (Glaucoma Therapies)</b>            |                                |
| acetazolamide                                                | acetazolamide                  |
| acetazolamide                                                | diamox sequels                 |
| acetazolamide sodium                                         | acetazolamide sodium           |
| acetylcholine chloride                                       | miochol-e                      |
| apraclonidine HCl                                            | apraclonidine                  |
| apraclonidine HCl                                            | iopidine                       |
| betaxolol HCl                                                | betaxolol                      |
| betaxolol HCl                                                | betoptic s                     |
| bimatoprost                                                  | bimatoprost                    |
| bimatoprost                                                  | durysta                        |
| bimatoprost                                                  | lumigan                        |
| bimatoprost/PF                                               | bimatoprost (PF)               |
| brimonidine tartrate                                         | alphagan p                     |
| brimonidine tartrate                                         | brimonidine                    |
| brimonidine tartrate/dorzolamide HCl                         | brimonidine-dorzolamide        |
| brimonidine tartrate/dorzolamide HCl/PF                      | brimonidine-dorzolamide (PF)   |
| brimonidine tartrate/timolol maleate                         | brimonidine-timolol            |
| brimonidine tartrate/timolol maleate                         | combigan                       |
| brinzolamide                                                 | azopt                          |
| brinzolamide                                                 | brinzolamide                   |
| brinzolamide/brimonidine tartrate                            | simbrinza                      |
| carbachol                                                    | isopto carbachol               |
| carbachol                                                    | miostat                        |
| carteolol HCl                                                | carteolol                      |
| dorzolamide HCl                                              | dorzolamide                    |



**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                                 | Brand Name                     |
|--------------------------------------------------------------|--------------------------------|
| dorzolamide HCl                                              | trusopt                        |
| dorzolamide HCl/PF                                           | dorzolamide (PF)               |
| dorzolamide HCl/timolol maleate                              | cosopt                         |
| dorzolamide HCl/timolol maleate                              | dorzolamide-timolol            |
| dorzolamide HCl/timolol maleate/PF                           | cosopt (PF)                    |
| dorzolamide HCl/timolol maleate/PF                           | dorzolamide-timolol (PF)       |
| echothiophate iodide                                         | phospholine iodide             |
| latanoprost                                                  | latanoprost                    |
| latanoprost                                                  | xalatan                        |
| latanoprost                                                  | xelpros                        |
| latanoprost/PF                                               | iyuzeh (PF)                    |
| latanoprost/PF                                               | latanoprost (PF)               |
| latanoprostene bunod                                         | vyzulta                        |
| levobunolol HCl                                              | betagan                        |
| levobunolol HCl                                              | levobunolol                    |
| methazolamide                                                | methazolamide                  |
| methazolamide                                                | neptazane                      |
| metipranolol                                                 | metipranolol                   |
| netarsudil mesylate                                          | rhopressa                      |
| netarsudil mesylate/latanoprost                              | rocklatan                      |
| pilocarpine HCl                                              | isopto carpine                 |
| pilocarpine HCl                                              | pilocarpine HCl                |
| pilocarpine HCl                                              | pilopine HS                    |
| tafluprost/PF                                                | tafluprost (PF)                |
| tafluprost/PF                                                | zioptan (PF)                   |
| timolol                                                      | betimol                        |
| timolol                                                      | timolol                        |
| timolol mal/brimonidine tart/dorzolamide HCl/bimatoprost/PF  | timol-brimon-dorzol-bimato(PF) |
| timolol malea/brimonidine tar/dorzolamide HCl/latanoprost/PF | timol-brimon-dorzo-latanop(PF) |
| timolol maleate                                              | istalol                        |
| timolol maleate                                              | timolol maleate                |
| timolol maleate                                              | timoptic                       |
| timolol maleate                                              | timoptic-XE                    |
| timolol maleate/PF                                           | timolol maleate (PF)           |
| timolol maleate/PF                                           | timoptic ocudose (PF)          |
| timolol maleate/bimatoprost/PF                               | timolol-bimatoprost (PF)       |
| timolol maleate/brimonidine tartrate/dorzolamide HCl/PF      | timolol-brimonidi-dorzolam(PF) |
| timolol maleate/dorzolamide HCl/bimatoprost/PF               | timolol-dorzolam-bimatopro(PF) |
| timolol maleate/dorzolamide HCl/latanoprost/PF               | timolol-dorzolamid-latanop(PF) |
| timolol maleate/latanoprost/PF                               | timolol-latanoprost(PF)        |
| travoprost                                                   | idose TR                       |
| travoprost                                                   | travatan z                     |
| travoprost                                                   | travoprost                     |
| travoprost (benzalkonium)                                    | travoprost (benzalkonium)      |
| unoprostone isopropyl                                        | rescula                        |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                                              | Brand Name                     |
|-----------------------------------------------------------|--------------------------------|
| <b>Sodium-Glucose Cotransporter-2 (SGLT-2) Inhibitors</b> |                                |
| bexagliflozin                                             | bexagliflozin                  |
| bexagliflozin                                             | brenzavvy                      |
| canagliflozin                                             | invokana                       |
| canagliflozin/metformin HCl                               | invokamet                      |
| canagliflozin/metformin HCl                               | invokamet XR                   |
| dapagliflozin                                             | xigduo                         |
| dapagliflozin and metformin hydrochloride                 | farxiga                        |
| dapagliflozin propanediol                                 | dapagliflozin propanediol      |
| dapagliflozin propanediol                                 | farxiga                        |
| dapagliflozin propanediol/metformin HCl                   | dapaglifloz propaned-metformin |
| dapagliflozin propanediol/metformin HCl                   | xigduo XR                      |
| empagliflozin                                             | jardiance                      |
| empagliflozin                                             | trijardy xr                    |
| empagliflozin and metformin hydrochloride                 | jardiance                      |
| empagliflozin/metformin HCl                               | synjardy                       |
| empagliflozin/metformin HCl                               | synjardy xr                    |
| ertugliflozin                                             | steglatro                      |
| ertugliflozin and metformin hydrochloride                 | segluomet                      |
| ertugliflozin pidolate                                    | steglatro                      |
| ertugliflozin pidolate/metformin HCl                      | segluomet                      |
| sotagliflozin                                             | inpefa                         |
| <b>SGLT2i-DPP4i Combos</b>                                |                                |
| dapagliflozin propanediol/saxagliptin HCl                 | qtern                          |
| empagliflozin, linagliptin, metformin hydrochloride       | trijardy XR                    |
| empagliflozin/linagliptin                                 | glyxambi                       |
| empagliflozin/linagliptin/metformin HCl                   | trijardy XR                    |
| ertugliflozin and sitagliptin                             | steglujan                      |
| ertugliflozin pidolate/sitagliptin phosphate              | steglujan                      |
| <b>Smoking Cessation Therapies</b>                        |                                |
| bupropion HCl                                             | buproban                       |
| bupropion HCl                                             | bupropion HCl (smoking deter)  |
| bupropion HCl                                             | zyban                          |
| nicotine                                                  | NTS step 1                     |
| nicotine                                                  | NTS step 2                     |
| nicotine                                                  | nicoderm CQ                    |
| nicotine                                                  | nicotine                       |
| nicotine                                                  | nicotrol                       |
| nicotine                                                  | nicotrol NS                    |
| nicotine polacrilex                                       | commit                         |
| nicotine polacrilex                                       | nicorelief                     |
| nicotine polacrilex                                       | nicorette                      |
| nicotine polacrilex                                       | nicotine (polacrilex)          |
| nicotine polacrilex                                       | quit 2                         |
| nicotine polacrilex                                       | quit 4                         |
| nicotine polacrilex                                       | stop smoking aid               |
| nicotine polacrilex                                       | thrive nicotine                |
| varenicline tartrate                                      | chantix                        |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                             | Brand Name                   |
|------------------------------------------|------------------------------|
| varenicline tartrate                     | chantix continuing month box |
| varenicline tartrate                     | chantix continuing month pak |
| varenicline tartrate                     | chantix starting month pak   |
| varenicline tartrate                     | varenicline                  |
| varenicline tartrate                     | varenicline tartrate         |
| <b>Statins</b>                           |                              |
| amlodipine besylate/atorvastatin calcium | amlodipine-atorvastatin      |
| amlodipine besylate/atorvastatin calcium | caduet                       |
| atorvastatin calcium                     | atorvaliq                    |
| atorvastatin calcium                     | atorvastatin                 |
| atorvastatin calcium                     | lipitor                      |
| ezetimibe/atorvastatin calcium           | ezetimibe-atorvastatin       |
| ezetimibe/atorvastatin calcium           | liptruzet                    |
| ezetimibe/rosuvastatin calcium           | ezetimibe-rosvastatin        |
| ezetimibe/rosuvastatin calcium           | roszet                       |
| ezetimibe/simvastatin                    | ezetimibe-simvastatin        |
| ezetimibe/simvastatin                    | vytorin 10-10                |
| ezetimibe/simvastatin                    | vytorin 10-20                |
| ezetimibe/simvastatin                    | vytorin 10-40                |
| ezetimibe/simvastatin                    | vytorin 10-80                |
| fluvastatin sodium                       | fluvastatin                  |
| fluvastatin sodium                       | lescol                       |
| fluvastatin sodium                       | lescol XL                    |
| lovastatin                               | altoprev                     |
| lovastatin                               | lovastatin                   |
| lovastatin                               | mevacor                      |
| niacin/lovastatin                        | advicor                      |
| niacin/simvastatin                       | simcor                       |
| pitavastatin calcium                     | livalo                       |
| pitavastatin calcium                     | pitavastatin calcium         |
| pitavastatin magnesium                   | zypitamag                    |
| pravastatin sodium                       | pravachol                    |
| pravastatin sodium                       | pravastatin                  |
| rosuvastatin calcium                     | crestor                      |
| rosuvastatin calcium                     | ezallor sprinkle             |
| rosuvastatin calcium                     | rosuvastatin                 |
| simvastatin                              | flolipid                     |
| simvastatin                              | simvastatin                  |
| simvastatin                              | zocor                        |
| sitagliptin phosphate/simvastatin        | juvisync                     |
| <b>Sulfonylureas</b>                     |                              |
| chlorpropamide                           | chlorpropamide               |
| glimepiride                              | amaryl                       |
| glimepiride                              | glimepiride                  |
| glipizide                                | glipizide                    |
| glipizide                                | glucotrol                    |
| glipizide                                | glucotrol XL                 |
| glipizide/metformin HCl                  | glipizide-metformin          |

**Appendix I. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

| Generic Name                         | Brand Name               |
|--------------------------------------|--------------------------|
| glyburide                            | diabeta                  |
| glyburide                            | glyburide                |
| glyburide,micronized                 | glyburide micronized     |
| glyburide,micronized                 | glynase                  |
| glyburide/metformin HCl              | glucovance               |
| glyburide/metformin HCl              | glyburide-metformin      |
| pioglitazone HCl/glimepiride         | duetact                  |
| pioglitazone HCl/glimepiride         | pioglitazone-glimepiride |
| rosiglitazone maleate/glimepiride    | avandaryl                |
| tolazamide                           | tolazamide               |
| tolbutamide                          | tolbutamide              |
| <b>Thiazolidinedione</b>             |                          |
| alogliptin benzoate/pioglitazone HCl | alogliptin-pioglitazone  |
| alogliptin benzoate/pioglitazone HCl | oseni                    |
| pioglitazone HCl                     | actos                    |
| pioglitazone HCl                     | pioglitazone             |
| pioglitazone HCl/glimepiride         | duetact                  |
| pioglitazone HCl/glimepiride         | pioglitazone-glimepiride |
| pioglitazone HCl/metformin HCl       | actoplus MET             |
| pioglitazone HCl/metformin HCl       | actoplus met XR          |
| pioglitazone HCl/metformin HCl       | pioglitazone-metformin   |
| rosiglitazone maleate                | avandia                  |
| rosiglitazone maleate/glimepiride    | avandaryl                |
| rosiglitazone maleate/metformin HCl  | avandamet                |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

|             |                                                                                    | Code      |           |
|-------------|------------------------------------------------------------------------------------|-----------|-----------|
| Code        | Description                                                                        | Category  | Code Type |
| Alcohol Use |                                                                                    |           |           |
| 291.0       | Alcohol withdrawal delirium                                                        | Diagnosis | ICD-9-CM  |
| 291.1       | Alcohol-induced persisting amnestic disorder                                       | Diagnosis | ICD-9-CM  |
| 291.2       | Alcohol-induced persisting dementia                                                | Diagnosis | ICD-9-CM  |
| 291.3       | Alcohol-induced psychotic disorder with hallucinations                             | Diagnosis | ICD-9-CM  |
| 291.4       | Idiosyncratic alcohol intoxication                                                 | Diagnosis | ICD-9-CM  |
| 291.5       | Alcohol-induced psychotic disorder with delusions                                  | Diagnosis | ICD-9-CM  |
| 291.8       | Other specified alcohol-induced mental disorders                                   | Diagnosis | ICD-9-CM  |
| 291.81      | Alcohol withdrawal                                                                 | Diagnosis | ICD-9-CM  |
| 291.82      | Alcohol induced sleep disorders                                                    | Diagnosis | ICD-9-CM  |
| 291.89      | Other specified alcohol-induced mental disorders                                   | Diagnosis | ICD-9-CM  |
| 291.9       | Unspecified alcohol-induced mental disorders                                       | Diagnosis | ICD-9-CM  |
| 303.00      | Acute alcoholic intoxication, unspecified                                          | Diagnosis | ICD-9-CM  |
| 303.01      | Acute alcoholic intoxication, continuous                                           | Diagnosis | ICD-9-CM  |
| 303.02      | Acute alcoholic intoxication, episodic                                             | Diagnosis | ICD-9-CM  |
| 303.03      | Acute alcoholic intoxication, in remission                                         | Diagnosis | ICD-9-CM  |
| 303.90      | Other and unspecified alcohol dependence, unspecified                              | Diagnosis | ICD-9-CM  |
| 303.91      | Other and unspecified alcohol dependence, continuous                               | Diagnosis | ICD-9-CM  |
| 303.92      | Other and unspecified alcohol dependence, episodic                                 | Diagnosis | ICD-9-CM  |
| 303.93      | Other and unspecified alcohol dependence, in remission                             | Diagnosis | ICD-9-CM  |
| 305.00      | Nondependent alcohol abuse, unspecified                                            | Diagnosis | ICD-9-CM  |
| 305.01      | Nondependent alcohol abuse, continuous                                             | Diagnosis | ICD-9-CM  |
| 305.02      | Nondependent alcohol abuse, episodic                                               | Diagnosis | ICD-9-CM  |
| 357.5       | Alcoholic polyneuropathy                                                           | Diagnosis | ICD-9-CM  |
| 425.5       | Alcoholic cardiomyopathy                                                           | Diagnosis | ICD-9-CM  |
| 535.30      | Alcoholic gastritis without mention of hemorrhage                                  | Diagnosis | ICD-9-CM  |
| 535.31      | Alcoholic gastritis with hemorrhage                                                | Diagnosis | ICD-9-CM  |
| 571.0       | Alcoholic fatty liver                                                              | Diagnosis | ICD-9-CM  |
| 571.1       | Acute alcoholic hepatitis                                                          | Diagnosis | ICD-9-CM  |
| 571.2       | Alcoholic cirrhosis of liver                                                       | Diagnosis | ICD-9-CM  |
| 571.3       | Unspecified alcoholic liver damage                                                 | Diagnosis | ICD-9-CM  |
| 760.71      | Noxious influences affecting fetus or newborn via placenta or breast milk, alcohol | Diagnosis | ICD-9-CM  |
| 790.3       | Excessive blood level of alcohol                                                   | Diagnosis | ICD-9-CM  |
| 94.46       | Alcoholism counseling                                                              | Procedure | ICD-9-CM  |
| 94.53       | Referral for alcoholism rehabilitation                                             | Procedure | ICD-9-CM  |
| 94.6        | Alcohol and drug rehabilitation and detoxification                                 | Procedure | ICD-9-CM  |
| 94.61       | Alcohol rehabilitation                                                             | Procedure | ICD-9-CM  |
| 94.62       | Alcohol detoxification                                                             | Procedure | ICD-9-CM  |
| 94.63       | Alcohol rehabilitation and detoxification                                          | Procedure | ICD-9-CM  |
| 94.67       | Combined alcohol and drug rehabilitation                                           | Procedure | ICD-9-CM  |
| 94.68       | Combined alcohol and drug detoxification                                           | Procedure | ICD-9-CM  |
| 94.69       | Combined alcohol and drug rehabilitation and detoxification                        | Procedure | ICD-9-CM  |
| 980.0       | Toxic effect of ethyl alcohol                                                      | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                    | Code      |           |
|---------|--------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                | Category  | Code Type |
| E860.0  | Accidental poisoning by alcoholic beverages                                    | Diagnosis | ICD-9-CM  |
| F10.10  | Alcohol abuse, uncomplicated                                                   | Diagnosis | ICD-10-CM |
| F10.11  | Alcohol abuse, in remission                                                    | Diagnosis | ICD-10-CM |
| F10.120 | Alcohol abuse with intoxication, uncomplicated                                 | Diagnosis | ICD-10-CM |
| F10.121 | Alcohol abuse with intoxication delirium                                       | Diagnosis | ICD-10-CM |
| F10.129 | Alcohol abuse with intoxication, unspecified                                   | Diagnosis | ICD-10-CM |
| F10.130 | Alcohol abuse with withdrawal, uncomplicated                                   | Diagnosis | ICD-10-CM |
| F10.131 | Alcohol abuse with withdrawal delirium                                         | Diagnosis | ICD-10-CM |
| F10.132 | Alcohol abuse with withdrawal with perceptual disturbance                      | Diagnosis | ICD-10-CM |
| F10.139 | Alcohol abuse with withdrawal, unspecified                                     | Diagnosis | ICD-10-CM |
| F10.14  | Alcohol abuse with alcohol-induced mood disorder                               | Diagnosis | ICD-10-CM |
| F10.150 | Alcohol abuse with alcohol-induced psychotic disorder with delusions           | Diagnosis | ICD-10-CM |
| F10.151 | Alcohol abuse with alcohol-induced psychotic disorder with hallucinations      | Diagnosis | ICD-10-CM |
| F10.159 | Alcohol abuse with alcohol-induced psychotic disorder, unspecified             | Diagnosis | ICD-10-CM |
| F10.180 | Alcohol abuse with alcohol-induced anxiety disorder                            | Diagnosis | ICD-10-CM |
| F10.181 | Alcohol abuse with alcohol-induced sexual dysfunction                          | Diagnosis | ICD-10-CM |
| F10.182 | Alcohol abuse with alcohol-induced sleep disorder                              | Diagnosis | ICD-10-CM |
| F10.188 | Alcohol abuse with other alcohol-induced disorder                              | Diagnosis | ICD-10-CM |
| F10.19  | Alcohol abuse with unspecified alcohol-induced disorder                        | Diagnosis | ICD-10-CM |
| F10.20  | Alcohol dependence, uncomplicated                                              | Diagnosis | ICD-10-CM |
| F10.21  | Alcohol dependence, in remission                                               | Diagnosis | ICD-10-CM |
| F10.220 | Alcohol dependence with intoxication, uncomplicated                            | Diagnosis | ICD-10-CM |
| F10.221 | Alcohol dependence with intoxication delirium                                  | Diagnosis | ICD-10-CM |
| F10.229 | Alcohol dependence with intoxication, unspecified                              | Diagnosis | ICD-10-CM |
| F10.230 | Alcohol dependence with withdrawal, uncomplicated                              | Diagnosis | ICD-10-CM |
| F10.231 | Alcohol dependence with withdrawal delirium                                    | Diagnosis | ICD-10-CM |
| F10.232 | Alcohol dependence with withdrawal with perceptual disturbance                 | Diagnosis | ICD-10-CM |
| F10.239 | Alcohol dependence with withdrawal, unspecified                                | Diagnosis | ICD-10-CM |
| F10.24  | Alcohol dependence with alcohol-induced mood disorder                          | Diagnosis | ICD-10-CM |
| F10.250 | Alcohol dependence with alcohol-induced psychotic disorder with delusions      | Diagnosis | ICD-10-CM |
| F10.251 | Alcohol dependence with alcohol-induced psychotic disorder with hallucinations | Diagnosis | ICD-10-CM |
| F10.259 | Alcohol dependence with alcohol-induced psychotic disorder, unspecified        | Diagnosis | ICD-10-CM |
| F10.26  | Alcohol dependence with alcohol-induced persisting amnesic disorder            | Diagnosis | ICD-10-CM |
| F10.27  | Alcohol dependence with alcohol-induced persisting dementia                    | Diagnosis | ICD-10-CM |
| F10.280 | Alcohol dependence with alcohol-induced anxiety disorder                       | Diagnosis | ICD-10-CM |
| F10.281 | Alcohol dependence with alcohol-induced sexual dysfunction                     | Diagnosis | ICD-10-CM |
| F10.282 | Alcohol dependence with alcohol-induced sleep disorder                         | Diagnosis | ICD-10-CM |
| F10.288 | Alcohol dependence with other alcohol-induced disorder                         | Diagnosis | ICD-10-CM |
| F10.29  | Alcohol dependence with unspecified alcohol-induced disorder                   | Diagnosis | ICD-10-CM |
| F10.920 | Alcohol use, unspecified with intoxication, uncomplicated                      | Diagnosis | ICD-10-CM |
| F10.921 | Alcohol use, unspecified with intoxication delirium                            | Diagnosis | ICD-10-CM |
| F10.929 | Alcohol use, unspecified with intoxication, unspecified                        | Diagnosis | ICD-10-CM |
| F10.930 | Alcohol use, unspecified with withdrawal, uncomplicated                        | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                          | Code      | Code Type  |
|---------|--------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                      | Category  |            |
| F10.931 | Alcohol use, unspecified with withdrawal delirium                                    | Diagnosis | ICD-10-CM  |
| F10.932 | Alcohol use, unspecified with withdrawal with perceptual disturbance                 | Diagnosis | ICD-10-CM  |
| F10.939 | Alcohol use, unspecified with withdrawal, unspecified                                | Diagnosis | ICD-10-CM  |
| F10.94  | Alcohol use, unspecified with alcohol-induced mood disorder                          | Diagnosis | ICD-10-CM  |
| F10.950 | Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions      | Diagnosis | ICD-10-CM  |
| F10.951 | Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations | Diagnosis | ICD-10-CM  |
| F10.959 | Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified        | Diagnosis | ICD-10-CM  |
| F10.96  | Alcohol use, unspecified with alcohol-induced persisting amnesic disorder            | Diagnosis | ICD-10-CM  |
| F10.97  | Alcohol use, unspecified with alcohol-induced persisting dementia                    | Diagnosis | ICD-10-CM  |
| F10.980 | Alcohol use, unspecified with alcohol-induced anxiety disorder                       | Diagnosis | ICD-10-CM  |
| F10.981 | Alcohol use, unspecified with alcohol-induced sexual dysfunction                     | Diagnosis | ICD-10-CM  |
| F10.982 | Alcohol use, unspecified with alcohol-induced sleep disorder                         | Diagnosis | ICD-10-CM  |
| F10.988 | Alcohol use, unspecified with other alcohol-induced disorder                         | Diagnosis | ICD-10-CM  |
| F10.99  | Alcohol use, unspecified with unspecified alcohol-induced disorder                   | Diagnosis | ICD-10-CM  |
| G62.1   | Alcoholic polyneuropathy                                                             | Diagnosis | ICD-10-CM  |
| HZ2ZZZZ | Detoxification Services for Substance Abuse Treatment                                | Procedure | ICD-10-PCS |
| HZ30ZZZ | Individual Counseling for Substance Abuse Treatment, Cognitive                       | Procedure | ICD-10-PCS |
| HZ31ZZZ | Individual Counseling for Substance Abuse Treatment, Behavioral                      | Procedure | ICD-10-PCS |
| HZ32ZZZ | Individual Counseling for Substance Abuse Treatment, Cognitive-Behavioral            | Procedure | ICD-10-PCS |
| HZ33ZZZ | Individual Counseling for Substance Abuse Treatment, 12-Step                         | Procedure | ICD-10-PCS |
| HZ34ZZZ | Individual Counseling for Substance Abuse Treatment, Interpersonal                   | Procedure | ICD-10-PCS |
| HZ35ZZZ | Individual Counseling for Substance Abuse Treatment, Vocational                      | Procedure | ICD-10-PCS |
| HZ36ZZZ | Individual Counseling for Substance Abuse Treatment, Psychoeducation                 | Procedure | ICD-10-PCS |
| HZ37ZZZ | Individual Counseling for Substance Abuse Treatment, Motivational Enhancement        | Procedure | ICD-10-PCS |
| HZ38ZZZ | Individual Counseling for Substance Abuse Treatment, Confrontational                 | Procedure | ICD-10-PCS |
| HZ39ZZZ | Individual Counseling for Substance Abuse Treatment, Continuing Care                 | Procedure | ICD-10-PCS |
| HZ3BZZZ | Individual Counseling for Substance Abuse Treatment, Spiritual                       | Procedure | ICD-10-PCS |
| HZ40ZZZ | Group Counseling for Substance Abuse Treatment, Cognitive                            | Procedure | ICD-10-PCS |
| HZ41ZZZ | Group Counseling for Substance Abuse Treatment, Behavioral                           | Procedure | ICD-10-PCS |
| HZ42ZZZ | Group Counseling for Substance Abuse Treatment, Cognitive-Behavioral                 | Procedure | ICD-10-PCS |
| HZ43ZZZ | Group Counseling for Substance Abuse Treatment, 12-Step                              | Procedure | ICD-10-PCS |
| HZ44ZZZ | Group Counseling for Substance Abuse Treatment, Interpersonal                        | Procedure | ICD-10-PCS |
| HZ45ZZZ | Group Counseling for Substance Abuse Treatment, Vocational                           | Procedure | ICD-10-PCS |
| HZ46ZZZ | Group Counseling for Substance Abuse Treatment, Psychoeducation                      | Procedure | ICD-10-PCS |
| HZ47ZZZ | Group Counseling for Substance Abuse Treatment, Motivational Enhancement             | Procedure | ICD-10-PCS |
| HZ48ZZZ | Group Counseling for Substance Abuse Treatment, Confrontational                      | Procedure | ICD-10-PCS |
| HZ49ZZZ | Group Counseling for Substance Abuse Treatment, Continuing Care                      | Procedure | ICD-10-PCS |
| HZ4BZZZ | Group Counseling for Substance Abuse Treatment, Spiritual                            | Procedure | ICD-10-PCS |
| HZ50ZZZ | Individual Psychotherapy for Substance Abuse Treatment, Cognitive                    | Procedure | ICD-10-PCS |
| HZ51ZZZ | Individual Psychotherapy for Substance Abuse Treatment, Behavioral                   | Procedure | ICD-10-PCS |
| HZ52ZZZ | Individual Psychotherapy for Substance Abuse Treatment, Cognitive-Behavioral         | Procedure | ICD-10-PCS |
| HZ53ZZZ | Individual Psychotherapy for Substance Abuse Treatment, 12-Step                      | Procedure | ICD-10-PCS |
| HZ54ZZZ | Individual Psychotherapy for Substance Abuse Treatment, Interpersonal                | Procedure | ICD-10-PCS |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                                                                               | Description                                                                       | Code      | Code Type  |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------|------------|
| HZ55ZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Interactive               | Procedure | ICD-10-PCS |
| HZ56ZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Psychoeducation           | Procedure | ICD-10-PCS |
| HZ57ZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Motivational Enhancement  | Procedure | ICD-10-PCS |
| HZ58ZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Confrontational           | Procedure | ICD-10-PCS |
| HZ59ZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Supportive                | Procedure | ICD-10-PCS |
| HZ5BZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Psychoanalysis            | Procedure | ICD-10-PCS |
| HZ5CZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Psychodynamic             | Procedure | ICD-10-PCS |
| HZ5DZZZ                                                                            | Individual Psychotherapy for Substance Abuse Treatment, Psychophysiological       | Procedure | ICD-10-PCS |
| HZ63ZZZ                                                                            | Family Counseling for Substance Abuse Treatment                                   | Procedure | ICD-10-PCS |
| HZ83ZZZ                                                                            | Medication Management for Substance Abuse Treatment, Antabuse                     | Procedure | ICD-10-PCS |
| HZ86ZZZ                                                                            | Medication Management for Substance Abuse Treatment, Clonidine                    | Procedure | ICD-10-PCS |
| HZ88ZZZ                                                                            | Medication Management for Substance Abuse Treatment, Psychiatric Medication       | Procedure | ICD-10-PCS |
| HZ89ZZZ                                                                            | Medication Management for Substance Abuse Treatment, Other Replacement Medication | Procedure | ICD-10-PCS |
| HZ93ZZZ                                                                            | Pharmacotherapy for Substance Abuse Treatment, Antabuse                           | Procedure | ICD-10-PCS |
| HZ96ZZZ                                                                            | Pharmacotherapy for Substance Abuse Treatment, Clonidine                          | Procedure | ICD-10-PCS |
| HZ98ZZZ                                                                            | Pharmacotherapy for Substance Abuse Treatment, Psychiatric Medication             | Procedure | ICD-10-PCS |
| HZ99ZZZ                                                                            | Pharmacotherapy for Substance Abuse Treatment, Other Replacement Medication       | Procedure | ICD-10-PCS |
| I42.6                                                                              | Alcoholic cardiomyopathy                                                          | Diagnosis | ICD-10-CM  |
| K29.20                                                                             | Alcoholic gastritis without bleeding                                              | Diagnosis | ICD-10-CM  |
| K29.21                                                                             | Alcoholic gastritis with bleeding                                                 | Diagnosis | ICD-10-CM  |
| K70.0                                                                              | Alcoholic fatty liver                                                             | Diagnosis | ICD-10-CM  |
| K70.10                                                                             | Alcoholic hepatitis without ascites                                               | Diagnosis | ICD-10-CM  |
| K70.11                                                                             | Alcoholic hepatitis with ascites                                                  | Diagnosis | ICD-10-CM  |
| K70.2                                                                              | Alcoholic fibrosis and sclerosis of liver                                         | Diagnosis | ICD-10-CM  |
| K70.30                                                                             | Alcoholic cirrhosis of liver without ascites                                      | Diagnosis | ICD-10-CM  |
| K70.31                                                                             | Alcoholic cirrhosis of liver with ascites                                         | Diagnosis | ICD-10-CM  |
| K70.40                                                                             | Alcoholic hepatic failure without coma                                            | Diagnosis | ICD-10-CM  |
| K70.41                                                                             | Alcoholic hepatic failure with coma                                               | Diagnosis | ICD-10-CM  |
| K70.9                                                                              | Alcoholic liver disease, unspecified                                              | Diagnosis | ICD-10-CM  |
| P04.3                                                                              | Newborn affected by maternal use of alcohol                                       | Diagnosis | ICD-10-CM  |
| Q86.0                                                                              | Fetal alcohol syndrome (dysmorphic)                                               | Diagnosis | ICD-10-CM  |
| R78.0                                                                              | Finding of alcohol in blood                                                       | Diagnosis | ICD-10-CM  |
| T51.0X1A                                                                           | Toxic effect of ethanol, accidental (unintentional), initial encounter            | Diagnosis | ICD-10-CM  |
| T51.0X2A                                                                           | Toxic effect of ethanol, intentional self-harm, initial encounter                 | Diagnosis | ICD-10-CM  |
| T51.0X3A                                                                           | Toxic effect of ethanol, assault, initial encounter                               | Diagnosis | ICD-10-CM  |
| T51.0X4A                                                                           | Toxic effect of ethanol, undetermined, initial encounter                          | Diagnosis | ICD-10-CM  |
| V11.3                                                                              | Personal history of alcoholism                                                    | Diagnosis | ICD-9-CM   |
| V65.42                                                                             | Counseling on substance use and abuse                                             | Diagnosis | ICD-9-CM   |
| V79.1                                                                              | Screening for alcoholism                                                          | Diagnosis | ICD-9-CM   |
| Z71.41                                                                             | Alcohol abuse counseling and surveillance of alcoholic                            | Diagnosis | ICD-10-CM  |
| <b>Aspirin, Acetaminophen, Other Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)</b> |                                                                                   |           |            |
| C9059                                                                              | Injection, meloxicam, 1 mg                                                        | Procedure | HCPCS      |
| C9279                                                                              | Injection, ibuprofen, 100 mg                                                      | Procedure | HCPCS      |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                                           | Description                                                                                    | Code      |           |
|------------------------------------------------|------------------------------------------------------------------------------------------------|-----------|-----------|
|                                                |                                                                                                | Category  | Code Type |
| J1130                                          | Injection, diclofenac sodium, 0.5 mg                                                           | Procedure | HCPCS     |
| J1738                                          | Injection, meloxicam, 1 mg                                                                     | Procedure | HCPCS     |
| J1741                                          | Injection, ibuprofen, 100 mg                                                                   | Procedure | HCPCS     |
| J1885                                          | Injection, ketorolac tromethamine, per 15 mg                                                   | Procedure | HCPCS     |
| <b>Beta Blockers</b>                           |                                                                                                |           |           |
| C9482                                          | Injection, sotalol HCl, 1 mg                                                                   | Procedure | HCPCS     |
| J1800                                          | Injection, propranolol HCl, up to 1 mg                                                         | Procedure | HCPCS     |
| J1805                                          | Injection, esmolol HCl, 10 mg                                                                  | Procedure | HCPCS     |
| J1806                                          | Injection, esmolol HCl (WG Critical Care), not therapeutically equivalent to J1805, 10 mg      | Procedure | HCPCS     |
| J1920                                          | Injection, labetalol HCl, 5 mg                                                                 | Procedure | HCPCS     |
| J1921                                          | Injection, labetalol HCl (Hikma), not therapeutically equivalent to J1920, 5 mg                | Procedure | HCPCS     |
| <b>Renal Cell Carcinoma - Broad Definition</b> |                                                                                                |           |           |
| 189                                            | Malignant neoplasm of kidney and other and unspecified urinary organs                          | Diagnosis | ICD-9-CM  |
| 189.0                                          | Malignant neoplasm of kidney, except pelvis                                                    | Diagnosis | ICD-9-CM  |
| 198.0                                          | Secondary malignant neoplasm of kidney                                                         | Diagnosis | ICD-9-CM  |
| C64                                            | Malignant neoplasm of kidney, except renal pelvis                                              | Diagnosis | ICD-10-CM |
| C64.1                                          | Malignant neoplasm of right kidney, except renal pelvis                                        | Diagnosis | ICD-10-CM |
| C64.2                                          | Malignant neoplasm of left kidney, except renal pelvis                                         | Diagnosis | ICD-10-CM |
| C64.9                                          | Malignant neoplasm of unspecified kidney, except renal pelvis                                  | Diagnosis | ICD-10-CM |
| C79.0                                          | Secondary malignant neoplasm of kidney and renal pelvis                                        | Diagnosis | ICD-10-CM |
| C79.00                                         | Secondary malignant neoplasm of unspecified kidney and renal pelvis                            | Diagnosis | ICD-10-CM |
| C79.01                                         | Secondary malignant neoplasm of right kidney and renal pelvis                                  | Diagnosis | ICD-10-CM |
| C79.02                                         | Secondary malignant neoplasm of left kidney and renal pelvis                                   | Diagnosis | ICD-10-CM |
| <b>Calcium Channel Blockers (CCB)</b>          |                                                                                                |           |           |
| C9248                                          | Injection, clevidipine butyrate, 1 mg                                                          | Procedure | HCPCS     |
| J2404                                          | Injection, nifedipine, 0.1 mg                                                                  | Procedure | HCPCS     |
| <b>Cerebrovascular Disease</b>                 |                                                                                                |           |           |
| 430                                            | Subarachnoid hemorrhage                                                                        | Diagnosis | ICD-9-CM  |
| 431                                            | Intracerebral hemorrhage                                                                       | Diagnosis | ICD-9-CM  |
| 433.01                                         | Occlusion and stenosis of basilar artery with cerebral infarction                              | Diagnosis | ICD-9-CM  |
| 433.11                                         | Occlusion and stenosis of carotid artery with cerebral infarction                              | Diagnosis | ICD-9-CM  |
| 433.21                                         | Occlusion and stenosis of vertebral artery with cerebral infarction                            | Diagnosis | ICD-9-CM  |
| 433.31                                         | Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction | Diagnosis | ICD-9-CM  |
| 433.81                                         | Occlusion and stenosis of other specified precerebral artery with cerebral infarction          | Diagnosis | ICD-9-CM  |
| 433.91                                         | Occlusion and stenosis of unspecified precerebral artery with cerebral infarction              | Diagnosis | ICD-9-CM  |
| 434.00                                         | Cerebral thrombosis without mention of cerebral infarction                                     | Diagnosis | ICD-9-CM  |
| 434.01                                         | Cerebral thrombosis with cerebral infarction                                                   | Diagnosis | ICD-9-CM  |
| 434.10                                         | Cerebral embolism without mention of cerebral infarction                                       | Diagnosis | ICD-9-CM  |
| 434.11                                         | Cerebral embolism with cerebral infarction                                                     | Diagnosis | ICD-9-CM  |
| 434.90                                         | Unspecified cerebral artery occlusion without mention of cerebral infarction                   | Diagnosis | ICD-9-CM  |
| 434.91                                         | Unspecified cerebral artery occlusion with cerebral infarction                                 | Diagnosis | ICD-9-CM  |
| 435.0                                          | Basilar artery syndrome                                                                        | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                                           | Code      |           |
|--------|-----------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                       | Category  | Code Type |
| 435.1  | Vertebral artery syndrome                                                                                             | Diagnosis | ICD-9-CM  |
| 435.3  | Vertebrobasilar artery syndrome                                                                                       | Diagnosis | ICD-9-CM  |
| 435.8  | Other specified transient cerebral ischemias                                                                          | Diagnosis | ICD-9-CM  |
| 435.9  | Unspecified transient cerebral ischemia                                                                               | Diagnosis | ICD-9-CM  |
| 436    | Acute, but ill-defined, cerebrovascular disease                                                                       | Diagnosis | ICD-9-CM  |
| 997.02 | Iatrogenic cerebrovascular infarction or hemorrhage                                                                   | Diagnosis | ICD-9-CM  |
| G45.0  | Vertebro-basilar artery syndrome                                                                                      | Diagnosis | ICD-10-CM |
| G45.1  | Carotid artery syndrome (hemispheric)                                                                                 | Diagnosis | ICD-10-CM |
| G45.2  | Multiple and bilateral precerebral artery syndromes                                                                   | Diagnosis | ICD-10-CM |
| G45.3  | Amaurosis fugax                                                                                                       | Diagnosis | ICD-10-CM |
| G45.8  | Other transient cerebral ischemic attacks and related syndromes                                                       | Diagnosis | ICD-10-CM |
| G45.9  | Transient cerebral ischemic attack, unspecified                                                                       | Diagnosis | ICD-10-CM |
| G46.0  | Middle cerebral artery syndrome                                                                                       | Diagnosis | ICD-10-CM |
| G46.1  | Anterior cerebral artery syndrome                                                                                     | Diagnosis | ICD-10-CM |
| G46.2  | Posterior cerebral artery syndrome                                                                                    | Diagnosis | ICD-10-CM |
| G46.3  | Brain stem stroke syndrome                                                                                            | Diagnosis | ICD-10-CM |
| G46.4  | Cerebellar stroke syndrome                                                                                            | Diagnosis | ICD-10-CM |
| G46.5  | Pure motor lacunar syndrome                                                                                           | Diagnosis | ICD-10-CM |
| G46.6  | Pure sensory lacunar syndrome                                                                                         | Diagnosis | ICD-10-CM |
| G46.7  | Other lacunar syndromes                                                                                               | Diagnosis | ICD-10-CM |
| G46.8  | Other vascular syndromes of brain in cerebrovascular diseases                                                         | Diagnosis | ICD-10-CM |
| G97.31 | Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure | Diagnosis | ICD-10-CM |
| G97.32 | Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure            | Diagnosis | ICD-10-CM |
| I60.00 | Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation                                  | Diagnosis | ICD-10-CM |
| I60.01 | Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation                                        | Diagnosis | ICD-10-CM |
| I60.02 | Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation                                         | Diagnosis | ICD-10-CM |
| I60.10 | Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery                                          | Diagnosis | ICD-10-CM |
| I60.11 | Nontraumatic subarachnoid hemorrhage from right middle cerebral artery                                                | Diagnosis | ICD-10-CM |
| I60.12 | Nontraumatic subarachnoid hemorrhage from left middle cerebral artery                                                 | Diagnosis | ICD-10-CM |
| I60.2  | Nontraumatic subarachnoid hemorrhage from anterior communicating artery                                               | Diagnosis | ICD-10-CM |
| I60.20 | Nontraumatic subarachnoid hemorrhage from unspecified anterior communicating artery                                   | Diagnosis | ICD-10-CM |
| I60.21 | Nontraumatic subarachnoid hemorrhage from right anterior communicating artery                                         | Diagnosis | ICD-10-CM |
| I60.22 | Nontraumatic subarachnoid hemorrhage from left anterior communicating artery                                          | Diagnosis | ICD-10-CM |
| I60.30 | Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating                                         | Diagnosis | ICD-10-CM |
| I60.31 | Nontraumatic subarachnoid hemorrhage from right posterior communicating artery                                        | Diagnosis | ICD-10-CM |
| I60.32 | Nontraumatic subarachnoid hemorrhage from left posterior communicating artery                                         | Diagnosis | ICD-10-CM |
| I60.4  | Nontraumatic subarachnoid hemorrhage from basilar artery                                                              | Diagnosis | ICD-10-CM |
| I60.50 | Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery                                                | Diagnosis | ICD-10-CM |
| I60.51 | Nontraumatic subarachnoid hemorrhage from right vertebral artery                                                      | Diagnosis | ICD-10-CM |
| I60.52 | Nontraumatic subarachnoid hemorrhage from left vertebral artery                                                       | Diagnosis | ICD-10-CM |
| I60.6  | Nontraumatic subarachnoid hemorrhage from other intracranial arteries                                                 | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                      | Code      |           |
|---------|--------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                  | Category  | Code Type |
| I60.7   | Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery                        | Diagnosis | ICD-10-CM |
| I60.8   | Other nontraumatic subarachnoid hemorrhage                                                       | Diagnosis | ICD-10-CM |
| I60.9   | Nontraumatic subarachnoid hemorrhage, unspecified                                                | Diagnosis | ICD-10-CM |
| I61.0   | Nontraumatic intracerebral hemorrhage in hemisphere, subcortical                                 | Diagnosis | ICD-10-CM |
| I61.1   | Nontraumatic intracerebral hemorrhage in hemisphere, cortical                                    | Diagnosis | ICD-10-CM |
| I61.2   | Nontraumatic intracerebral hemorrhage in hemisphere, unspecified                                 | Diagnosis | ICD-10-CM |
| I61.3   | Nontraumatic intracerebral hemorrhage in brain stem                                              | Diagnosis | ICD-10-CM |
| I61.4   | Nontraumatic intracerebral hemorrhage in cerebellum                                              | Diagnosis | ICD-10-CM |
| I61.5   | Nontraumatic intracerebral hemorrhage, intraventricular                                          | Diagnosis | ICD-10-CM |
| I61.6   | Nontraumatic intracerebral hemorrhage, multiple localized                                        | Diagnosis | ICD-10-CM |
| I61.8   | Other nontraumatic intracerebral hemorrhage                                                      | Diagnosis | ICD-10-CM |
| I61.9   | Nontraumatic intracerebral hemorrhage, unspecified                                               | Diagnosis | ICD-10-CM |
| I62.00  | Nontraumatic subdural hemorrhage, unspecified                                                    | Diagnosis | ICD-10-CM |
| I62.01  | Nontraumatic acute subdural hemorrhage                                                           | Diagnosis | ICD-10-CM |
| I62.02  | Nontraumatic subacute subdural hemorrhage                                                        | Diagnosis | ICD-10-CM |
| I62.9   | Nontraumatic intracranial hemorrhage, unspecified                                                | Diagnosis | ICD-10-CM |
| I63.00  | Cerebral infarction due to thrombosis of unspecified precerebral artery                          | Diagnosis | ICD-10-CM |
| I63.011 | Cerebral infarction due to thrombosis of right vertebral artery                                  | Diagnosis | ICD-10-CM |
| I63.012 | Cerebral infarction due to thrombosis of left vertebral artery                                   | Diagnosis | ICD-10-CM |
| I63.013 | Cerebral infarction due to thrombosis of bilateral vertebral arteries                            | Diagnosis | ICD-10-CM |
| I63.019 | Cerebral infarction due to thrombosis of unspecified vertebral artery                            | Diagnosis | ICD-10-CM |
| I63.02  | Cerebral infarction due to thrombosis of basilar artery                                          | Diagnosis | ICD-10-CM |
| I63.031 | Cerebral infarction due to thrombosis of right carotid artery                                    | Diagnosis | ICD-10-CM |
| I63.032 | Cerebral infarction due to thrombosis of left carotid artery                                     | Diagnosis | ICD-10-CM |
| I63.033 | Cerebral infarction due to thrombosis of bilateral carotid arteries                              | Diagnosis | ICD-10-CM |
| I63.039 | Cerebral infarction due to thrombosis of unspecified carotid artery                              | Diagnosis | ICD-10-CM |
| I63.09  | Cerebral infarction due to thrombosis of other precerebral artery                                | Diagnosis | ICD-10-CM |
| I63.10  | Cerebral infarction due to embolism of unspecified precerebral artery                            | Diagnosis | ICD-10-CM |
| I63.111 | Cerebral infarction due to embolism of right vertebral artery                                    | Diagnosis | ICD-10-CM |
| I63.112 | Cerebral infarction due to embolism of left vertebral artery                                     | Diagnosis | ICD-10-CM |
| I63.113 | Cerebral infarction due to embolism of bilateral vertebral arteries                              | Diagnosis | ICD-10-CM |
| I63.119 | Cerebral infarction due to embolism of unspecified vertebral artery                              | Diagnosis | ICD-10-CM |
| I63.12  | Cerebral infarction due to embolism of basilar artery                                            | Diagnosis | ICD-10-CM |
| I63.131 | Cerebral infarction due to embolism of right carotid artery                                      | Diagnosis | ICD-10-CM |
| I63.132 | Cerebral infarction due to embolism of left carotid artery                                       | Diagnosis | ICD-10-CM |
| I63.133 | Cerebral infarction due to embolism of bilateral carotid arteries                                | Diagnosis | ICD-10-CM |
| I63.139 | Cerebral infarction due to embolism of unspecified carotid artery                                | Diagnosis | ICD-10-CM |
| I63.19  | Cerebral infarction due to embolism of other precerebral artery                                  | Diagnosis | ICD-10-CM |
| I63.20  | Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries | Diagnosis | ICD-10-CM |
| I63.211 | Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery           | Diagnosis | ICD-10-CM |
| I63.212 | Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery            | Diagnosis | ICD-10-CM |
| I63.213 | Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries     | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                  | Code      | Code Type |
|---------|----------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                              | Category  |           |
| I63.219 | Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral artery | Diagnosis | ICD-10-CM |
| I63.22  | Cerebral infarction due to unspecified occlusion or stenosis of basilar artery               | Diagnosis | ICD-10-CM |
| I63.231 | Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries       | Diagnosis | ICD-10-CM |
| I63.232 | Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries        | Diagnosis | ICD-10-CM |
| I63.233 | Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries   | Diagnosis | ICD-10-CM |
| I63.239 | Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid artery   | Diagnosis | ICD-10-CM |
| I63.29  | Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries   | Diagnosis | ICD-10-CM |
| I63.30  | Cerebral infarction due to thrombosis of unspecified cerebral artery                         | Diagnosis | ICD-10-CM |
| I63.311 | Cerebral infarction due to thrombosis of right middle cerebral artery                        | Diagnosis | ICD-10-CM |
| I63.312 | Cerebral infarction due to thrombosis of left middle cerebral artery                         | Diagnosis | ICD-10-CM |
| I63.313 | Cerebral infarction due to thrombosis of bilateral middle cerebral arteries                  | Diagnosis | ICD-10-CM |
| I63.319 | Cerebral infarction due to thrombosis of unspecified middle cerebral artery                  | Diagnosis | ICD-10-CM |
| I63.321 | Cerebral infarction due to thrombosis of right anterior cerebral artery                      | Diagnosis | ICD-10-CM |
| I63.322 | Cerebral infarction due to thrombosis of left anterior cerebral artery                       | Diagnosis | ICD-10-CM |
| I63.323 | Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries                | Diagnosis | ICD-10-CM |
| I63.329 | Cerebral infarction due to thrombosis of unspecified anterior cerebral artery                | Diagnosis | ICD-10-CM |
| I63.331 | Cerebral infarction due to thrombosis of right posterior cerebral artery                     | Diagnosis | ICD-10-CM |
| I63.332 | Cerebral infarction due to thrombosis of left posterior cerebral artery                      | Diagnosis | ICD-10-CM |
| I63.333 | Cerebral infarction due to thrombosis of bilateral posterior cerebral arteries               | Diagnosis | ICD-10-CM |
| I63.339 | Cerebral infarction due to thrombosis of unspecified posterior cerebral artery               | Diagnosis | ICD-10-CM |
| I63.341 | Cerebral infarction due to thrombosis of right cerebellar artery                             | Diagnosis | ICD-10-CM |
| I63.342 | Cerebral infarction due to thrombosis of left cerebellar artery                              | Diagnosis | ICD-10-CM |
| I63.343 | Cerebral infarction due to thrombosis of bilateral cerebellar arteries                       | Diagnosis | ICD-10-CM |
| I63.349 | Cerebral infarction due to thrombosis of unspecified cerebellar artery                       | Diagnosis | ICD-10-CM |
| I63.39  | Cerebral infarction due to thrombosis of other cerebral artery                               | Diagnosis | ICD-10-CM |
| I63.40  | Cerebral infarction due to embolism of unspecified cerebral artery                           | Diagnosis | ICD-10-CM |
| I63.411 | Cerebral infarction due to embolism of right middle cerebral artery                          | Diagnosis | ICD-10-CM |
| I63.412 | Cerebral infarction due to embolism of left middle cerebral artery                           | Diagnosis | ICD-10-CM |
| I63.413 | Cerebral infarction due to embolism of bilateral middle cerebral arteries                    | Diagnosis | ICD-10-CM |
| I63.419 | Cerebral infarction due to embolism of unspecified middle cerebral artery                    | Diagnosis | ICD-10-CM |
| I63.421 | Cerebral infarction due to embolism of right anterior cerebral artery                        | Diagnosis | ICD-10-CM |
| I63.422 | Cerebral infarction due to embolism of left anterior cerebral artery                         | Diagnosis | ICD-10-CM |
| I63.423 | Cerebral infarction due to embolism of bilateral anterior cerebral arteries                  | Diagnosis | ICD-10-CM |
| I63.429 | Cerebral infarction due to embolism of unspecified anterior cerebral artery                  | Diagnosis | ICD-10-CM |
| I63.431 | Cerebral infarction due to embolism of right posterior cerebral artery                       | Diagnosis | ICD-10-CM |
| I63.432 | Cerebral infarction due to embolism of left posterior cerebral artery                        | Diagnosis | ICD-10-CM |
| I63.433 | Cerebral infarction due to embolism of bilateral posterior cerebral arteries                 | Diagnosis | ICD-10-CM |
| I63.439 | Cerebral infarction due to embolism of unspecified posterior cerebral artery                 | Diagnosis | ICD-10-CM |
| I63.441 | Cerebral infarction due to embolism of right cerebellar artery                               | Diagnosis | ICD-10-CM |
| I63.442 | Cerebral infarction due to embolism of left cerebellar artery                                | Diagnosis | ICD-10-CM |
| I63.443 | Cerebral infarction due to embolism of bilateral cerebellar arteries                         | Diagnosis | ICD-10-CM |
| I63.449 | Cerebral infarction due to embolism of unspecified cerebellar artery                         | Diagnosis | ICD-10-CM |
| I63.49  | Cerebral infarction due to embolism of other cerebral artery                                 | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                           | Code      |           |
|---------|-------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                       | Category  | Code Type |
| I63.50  | Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery           | Diagnosis | ICD-10-CM |
| I63.511 | Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery          | Diagnosis | ICD-10-CM |
| I63.512 | Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery           | Diagnosis | ICD-10-CM |
| I63.513 | Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries    | Diagnosis | ICD-10-CM |
| I63.519 | Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery    | Diagnosis | ICD-10-CM |
| I63.521 | Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral               | Diagnosis | ICD-10-CM |
| I63.522 | Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery         | Diagnosis | ICD-10-CM |
| I63.523 | Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral arteries  | Diagnosis | ICD-10-CM |
| I63.529 | Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior cerebral artery  | Diagnosis | ICD-10-CM |
| I63.531 | Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery       | Diagnosis | ICD-10-CM |
| I63.532 | Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery        | Diagnosis | ICD-10-CM |
| I63.533 | Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral arteries | Diagnosis | ICD-10-CM |
| I63.539 | Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery | Diagnosis | ICD-10-CM |
| I63.541 | Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery               | Diagnosis | ICD-10-CM |
| I63.542 | Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery                | Diagnosis | ICD-10-CM |
| I63.543 | Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries         | Diagnosis | ICD-10-CM |
| I63.549 | Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar                | Diagnosis | ICD-10-CM |
| I63.59  | Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery                 | Diagnosis | ICD-10-CM |
| I63.6   | Cerebral infarction due to cerebral venous thrombosis, nonpyogenic                                    | Diagnosis | ICD-10-CM |
| I63.8   | Other cerebral infarction                                                                             | Diagnosis | ICD-10-CM |
| I63.81  | Other cerebral infarction due to occlusion or stenosis of small artery                                | Diagnosis | ICD-10-CM |
| I63.89  | Other cerebral infarction                                                                             | Diagnosis | ICD-10-CM |
| I63.9   | Cerebral infarction, unspecified                                                                      | Diagnosis | ICD-10-CM |
| I66.01  | Occlusion and stenosis of right middle cerebral artery                                                | Diagnosis | ICD-10-CM |
| I66.02  | Occlusion and stenosis of left middle cerebral artery                                                 | Diagnosis | ICD-10-CM |
| I66.03  | Occlusion and stenosis of bilateral middle cerebral arteries                                          | Diagnosis | ICD-10-CM |
| I66.09  | Occlusion and stenosis of unspecified middle cerebral artery                                          | Diagnosis | ICD-10-CM |
| I66.11  | Occlusion and stenosis of right anterior cerebral artery                                              | Diagnosis | ICD-10-CM |
| I66.12  | Occlusion and stenosis of left anterior cerebral artery                                               | Diagnosis | ICD-10-CM |
| I66.13  | Occlusion and stenosis of bilateral anterior cerebral arteries                                        | Diagnosis | ICD-10-CM |
| I66.19  | Occlusion and stenosis of unspecified anterior cerebral artery                                        | Diagnosis | ICD-10-CM |
| I66.21  | Occlusion and stenosis of right posterior cerebral artery                                             | Diagnosis | ICD-10-CM |
| I66.22  | Occlusion and stenosis of left posterior cerebral artery                                              | Diagnosis | ICD-10-CM |
| I66.23  | Occlusion and stenosis of bilateral posterior cerebral arteries                                       | Diagnosis | ICD-10-CM |
| I66.29  | Occlusion and stenosis of unspecified posterior cerebral artery                                       | Diagnosis | ICD-10-CM |
| I66.3   | Occlusion and stenosis of cerebellar arteries                                                         | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                                                | Description                                                                    | Code      |           |
|-----------------------------------------------------|--------------------------------------------------------------------------------|-----------|-----------|
|                                                     |                                                                                | Category  | Code Type |
| I66.8                                               | Occlusion and stenosis of other cerebral arteries                              | Diagnosis | ICD-10-CM |
| I66.9                                               | Occlusion and stenosis of unspecified cerebral artery                          | Diagnosis | ICD-10-CM |
| I67.841                                             | Reversible cerebrovascular vasoconstriction syndrome                           | Diagnosis | ICD-10-CM |
| I67.848                                             | Other cerebrovascular vasospasm and vasoconstriction                           | Diagnosis | ICD-10-CM |
| I67.89                                              | Other cerebrovascular disease                                                  | Diagnosis | ICD-10-CM |
| I97.810                                             | Intraoperative cerebrovascular infarction during cardiac surgery               | Diagnosis | ICD-10-CM |
| I97.811                                             | Intraoperative cerebrovascular infarction during other surgery                 | Diagnosis | ICD-10-CM |
| I97.820                                             | Postprocedural cerebrovascular infarction following cardiac surgery            | Diagnosis | ICD-10-CM |
| I97.821                                             | Postprocedural cerebrovascular infarction following other surgery              | Diagnosis | ICD-10-CM |
| <b>Chronic Obstructive Pulmonary Disease (COPD)</b> |                                                                                |           |           |
| 490                                                 | Bronchitis, not specified as acute or chronic                                  | Diagnosis | ICD-9-CM  |
| 491                                                 | Chronic bronchitis                                                             | Diagnosis | ICD-9-CM  |
| 491.0                                               | Simple chronic bronchitis                                                      | Diagnosis | ICD-9-CM  |
| 491.1                                               | Mucopurulent chronic bronchitis                                                | Diagnosis | ICD-9-CM  |
| 491.2                                               | Obstructive chronic bronchitis                                                 | Diagnosis | ICD-9-CM  |
| 491.20                                              | Obstructive chronic bronchitis, without exacerbation                           | Diagnosis | ICD-9-CM  |
| 491.21                                              | Obstructive chronic bronchitis, with (acute) exacerbation                      | Diagnosis | ICD-9-CM  |
| 491.22                                              | Obstructive chronic bronchitis with acute bronchitis                           | Diagnosis | ICD-9-CM  |
| 491.8                                               | Other chronic bronchitis                                                       | Diagnosis | ICD-9-CM  |
| 491.9                                               | Unspecified chronic bronchitis                                                 | Diagnosis | ICD-9-CM  |
| 492                                                 | Emphysema                                                                      | Diagnosis | ICD-9-CM  |
| 492.0                                               | Emphysematous bleb                                                             | Diagnosis | ICD-9-CM  |
| 492.8                                               | Other emphysema                                                                | Diagnosis | ICD-9-CM  |
| 494                                                 | Bronchiectasis                                                                 | Diagnosis | ICD-9-CM  |
| 494.0                                               | Bronchiectasis without acute exacerbation                                      | Diagnosis | ICD-9-CM  |
| 494.1                                               | Bronchiectasis with acute exacerbation                                         | Diagnosis | ICD-9-CM  |
| 496                                                 | Chronic airway obstruction, not elsewhere classified                           | Diagnosis | ICD-9-CM  |
| J40                                                 | Bronchitis, not specified as acute or chronic                                  | Diagnosis | ICD-10-CM |
| J41.0                                               | Simple chronic bronchitis                                                      | Diagnosis | ICD-10-CM |
| J41.1                                               | Mucopurulent chronic bronchitis                                                | Diagnosis | ICD-10-CM |
| J41.8                                               | Mixed simple and mucopurulent chronic bronchitis                               | Diagnosis | ICD-10-CM |
| J42                                                 | Unspecified chronic bronchitis                                                 | Diagnosis | ICD-10-CM |
| J43.0                                               | Unilateral pulmonary emphysema [MacLeod's syndrome]                            | Diagnosis | ICD-10-CM |
| J43.1                                               | Panlobular emphysema                                                           | Diagnosis | ICD-10-CM |
| J43.2                                               | Centrilobular emphysema                                                        | Diagnosis | ICD-10-CM |
| J43.8                                               | Other emphysema                                                                | Diagnosis | ICD-10-CM |
| J43.9                                               | Emphysema, unspecified                                                         | Diagnosis | ICD-10-CM |
| J44.0                                               | Chronic obstructive pulmonary disease with (acute) lower respiratory infection | Diagnosis | ICD-10-CM |
| J44.1                                               | Chronic obstructive pulmonary disease with (acute) exacerbation                | Diagnosis | ICD-10-CM |
| J44.9                                               | Chronic obstructive pulmonary disease, unspecified                             | Diagnosis | ICD-10-CM |
| J47.0                                               | Bronchiectasis with acute lower respiratory infection                          | Diagnosis | ICD-10-CM |
| J47.1                                               | Bronchiectasis with (acute) exacerbation                                       | Diagnosis | ICD-10-CM |
| J47.9                                               | Bronchiectasis, uncomplicated                                                  | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

|                          |                                                                                                                                                            | Code      |           |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Code                     | Description                                                                                                                                                | Category  | Code Type |
| Congestive Heart Failure |                                                                                                                                                            |           |           |
| 398.91                   | Rheumatic heart failure (congestive)                                                                                                                       | Diagnosis | ICD-9-CM  |
| 402.01                   | Malignant hypertensive heart disease with heart failure                                                                                                    | Diagnosis | ICD-9-CM  |
| 402.11                   | Benign hypertensive heart disease with heart failure                                                                                                       | Diagnosis | ICD-9-CM  |
| 402.91                   | Hypertensive heart disease, unspecified, with heart failure                                                                                                | Diagnosis | ICD-9-CM  |
| 404.01                   | Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified      | Diagnosis | ICD-9-CM  |
| 404.03                   | Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease            | Diagnosis | ICD-9-CM  |
| 404.11                   | Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified         | Diagnosis | ICD-9-CM  |
| 404.13                   | Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease                    | Diagnosis | ICD-9-CM  |
| 404.91                   | Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified    | Diagnosis | ICD-9-CM  |
| 404.93                   | Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease               | Diagnosis | ICD-9-CM  |
| 428.0                    | Congestive heart failure, unspecified                                                                                                                      | Diagnosis | ICD-9-CM  |
| 428.1                    | Left heart failure                                                                                                                                         | Diagnosis | ICD-9-CM  |
| 428.20                   | Unspecified systolic heart failure                                                                                                                         | Diagnosis | ICD-9-CM  |
| 428.21                   | Acute systolic heart failure                                                                                                                               | Diagnosis | ICD-9-CM  |
| 428.22                   | Chronic systolic heart failure                                                                                                                             | Diagnosis | ICD-9-CM  |
| 428.23                   | Acute on chronic systolic heart failure                                                                                                                    | Diagnosis | ICD-9-CM  |
| 428.30                   | Unspecified diastolic heart failure                                                                                                                        | Diagnosis | ICD-9-CM  |
| 428.31                   | Acute diastolic heart failure                                                                                                                              | Diagnosis | ICD-9-CM  |
| 428.32                   | Chronic diastolic heart failure                                                                                                                            | Diagnosis | ICD-9-CM  |
| 428.33                   | Acute on chronic diastolic heart failure                                                                                                                   | Diagnosis | ICD-9-CM  |
| 428.40                   | Unspecified combined systolic and diastolic heart failure                                                                                                  | Diagnosis | ICD-9-CM  |
| 428.41                   | Acute combined systolic and diastolic heart failure                                                                                                        | Diagnosis | ICD-9-CM  |
| 428.42                   | Chronic combined systolic and diastolic heart failure                                                                                                      | Diagnosis | ICD-9-CM  |
| 428.43                   | Acute on chronic combined systolic and diastolic heart failure                                                                                             | Diagnosis | ICD-9-CM  |
| 428.9                    | Unspecified heart failure                                                                                                                                  | Diagnosis | ICD-9-CM  |
| I09.81                   | Rheumatic heart failure                                                                                                                                    | Diagnosis | ICD-10-CM |
| I11.0                    | Hypertensive heart disease with heart failure                                                                                                              | Diagnosis | ICD-10-CM |
| I13.0                    | Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease | Diagnosis | ICD-10-CM |
| I13.2                    | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease                       | Diagnosis | ICD-10-CM |
| I42.0                    | Dilated cardiomyopathy                                                                                                                                     | Diagnosis | ICD-10-CM |
| I42.5                    | Other restrictive cardiomyopathy                                                                                                                           | Diagnosis | ICD-10-CM |
| I42.6                    | Alcoholic cardiomyopathy                                                                                                                                   | Diagnosis | ICD-10-CM |
| I42.7                    | Cardiomyopathy due to drug and external agent                                                                                                              | Diagnosis | ICD-10-CM |
| I42.8                    | Other cardiomyopathies                                                                                                                                     | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                           | Description                                                                              | Code      |           |
|--------------------------------|------------------------------------------------------------------------------------------|-----------|-----------|
|                                |                                                                                          | Category  | Code Type |
| I43                            | Cardiomyopathy in diseases classified elsewhere                                          | Diagnosis | ICD-10-CM |
| I50.1                          | Left ventricular failure, unspecified                                                    | Diagnosis | ICD-10-CM |
| I50.2                          | Systolic (congestive) heart failure                                                      | Diagnosis | ICD-10-CM |
| I50.20                         | Unspecified systolic (congestive) heart failure                                          | Diagnosis | ICD-10-CM |
| I50.21                         | Acute systolic (congestive) heart failure                                                | Diagnosis | ICD-10-CM |
| I50.22                         | Chronic systolic (congestive) heart failure                                              | Diagnosis | ICD-10-CM |
| I50.23                         | Acute on chronic systolic (congestive) heart failure                                     | Diagnosis | ICD-10-CM |
| I50.3                          | Diastolic (congestive) heart failure                                                     | Diagnosis | ICD-10-CM |
| I50.30                         | Unspecified diastolic (congestive) heart failure                                         | Diagnosis | ICD-10-CM |
| I50.31                         | Acute diastolic (congestive) heart failure                                               | Diagnosis | ICD-10-CM |
| I50.32                         | Chronic diastolic (congestive) heart failure                                             | Diagnosis | ICD-10-CM |
| I50.33                         | Acute on chronic diastolic (congestive) heart failure                                    | Diagnosis | ICD-10-CM |
| I50.40                         | Unspecified combined systolic (congestive) and diastolic (congestive) heart failure      | Diagnosis | ICD-10-CM |
| I50.41                         | Acute combined systolic (congestive) and diastolic (congestive) heart failure            | Diagnosis | ICD-10-CM |
| I50.42                         | Chronic combined systolic (congestive) and diastolic (congestive) heart failure          | Diagnosis | ICD-10-CM |
| I50.43                         | Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure | Diagnosis | ICD-10-CM |
| I50.810                        | Right heart failure, unspecified                                                         | Diagnosis | ICD-10-CM |
| I50.811                        | Acute right heart failure                                                                | Diagnosis | ICD-10-CM |
| I50.812                        | Chronic right heart failure                                                              | Diagnosis | ICD-10-CM |
| I50.813                        | Acute on chronic right heart failure                                                     | Diagnosis | ICD-10-CM |
| I50.814                        | Right heart failure due to left heart failure                                            | Diagnosis | ICD-10-CM |
| I50.82                         | Biventricular heart failure                                                              | Diagnosis | ICD-10-CM |
| I50.83                         | High output heart failure                                                                | Diagnosis | ICD-10-CM |
| I50.84                         | End stage heart failure                                                                  | Diagnosis | ICD-10-CM |
| I50.89                         | Other heart failure                                                                      | Diagnosis | ICD-10-CM |
| I50.9                          | Heart failure, unspecified                                                               | Diagnosis | ICD-10-CM |
| <b>Coronary Artery Disease</b> |                                                                                          |           |           |
| 410.00                         | Acute myocardial infarction of anterolateral wall, episode of care unspecified           | Diagnosis | ICD-9-CM  |
| 410.01                         | Acute myocardial infarction of anterolateral wall, initial episode of care               | Diagnosis | ICD-9-CM  |
| 410.02                         | Acute myocardial infarction of anterolateral wall, subsequent episode of care            | Diagnosis | ICD-9-CM  |
| 410.10                         | Acute myocardial infarction of other anterior wall, episode of care unspecified          | Diagnosis | ICD-9-CM  |
| 410.11                         | Acute myocardial infarction of other anterior wall, initial episode of care              | Diagnosis | ICD-9-CM  |
| 410.12                         | Acute myocardial infarction of other anterior wall, subsequent episode of care           | Diagnosis | ICD-9-CM  |
| 410.20                         | Acute myocardial infarction of inferolateral wall, episode of care unspecified           | Diagnosis | ICD-9-CM  |
| 410.21                         | Acute myocardial infarction of inferolateral wall, initial episode of care               | Diagnosis | ICD-9-CM  |
| 410.22                         | Acute myocardial infarction of inferolateral wall, subsequent episode of care            | Diagnosis | ICD-9-CM  |
| 410.30                         | Acute myocardial infarction of inferoposterior wall, episode of care unspecified         | Diagnosis | ICD-9-CM  |
| 410.31                         | Acute myocardial infarction of inferoposterior wall, initial episode of care             | Diagnosis | ICD-9-CM  |
| 410.32                         | Acute myocardial infarction of inferoposterior wall, subsequent episode of care          | Diagnosis | ICD-9-CM  |
| 410.40                         | Acute myocardial infarction of other inferior wall, episode of care unspecified          | Diagnosis | ICD-9-CM  |
| 410.41                         | Acute myocardial infarction of other inferior wall, initial episode of care              | Diagnosis | ICD-9-CM  |
| 410.42                         | Acute myocardial infarction of other inferior wall, subsequent episode of care           | Diagnosis | ICD-9-CM  |
| 410.50                         | Acute myocardial infarction of other lateral wall, episode of care unspecified           | Diagnosis | ICD-9-CM  |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                              | Code      | Code Type |
|--------|------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                          | Category  |           |
| 410.51 | Acute myocardial infarction of other lateral wall, initial episode of care               | Diagnosis | ICD-9-CM  |
| 410.52 | Acute myocardial infarction of other lateral wall, subsequent episode of care            | Diagnosis | ICD-9-CM  |
| 410.60 | Acute myocardial infarction, true posterior wall infarction, episode of care unspecified | Diagnosis | ICD-9-CM  |
| 410.61 | Acute myocardial infarction, true posterior wall infarction, initial episode of care     | Diagnosis | ICD-9-CM  |
| 410.62 | Acute myocardial infarction, true posterior wall infarction, subsequent episode of care  | Diagnosis | ICD-9-CM  |
| 410.70 | Acute myocardial infarction, subendocardial infarction, episode of care unspecified      | Diagnosis | ICD-9-CM  |
| 410.71 | Acute myocardial infarction, subendocardial infarction, initial episode of care          | Diagnosis | ICD-9-CM  |
| 410.72 | Acute myocardial infarction, subendocardial infarction, subsequent episode of care       | Diagnosis | ICD-9-CM  |
| 410.80 | Acute myocardial infarction of other specified sites, episode of care unspecified        | Diagnosis | ICD-9-CM  |
| 410.81 | Acute myocardial infarction of other specified sites, initial episode of care            | Diagnosis | ICD-9-CM  |
| 410.82 | Acute myocardial infarction of other specified sites, subsequent episode of care         | Diagnosis | ICD-9-CM  |
| 410.90 | Acute myocardial infarction, unspecified site, episode of care unspecified               | Diagnosis | ICD-9-CM  |
| 410.91 | Acute myocardial infarction, unspecified site, initial episode of care                   | Diagnosis | ICD-9-CM  |
| 410.92 | Acute myocardial infarction, unspecified site, subsequent episode of care                | Diagnosis | ICD-9-CM  |
| 411.0  | Postmyocardial infarction syndrome                                                       | Diagnosis | ICD-9-CM  |
| 411.1  | Intermediate coronary syndrome                                                           | Diagnosis | ICD-9-CM  |
| 411.81 | Acute coronary occlusion without myocardial infarction                                   | Diagnosis | ICD-9-CM  |
| 411.89 | Other acute and subacute form of ischemic heart disease                                  | Diagnosis | ICD-9-CM  |
| 412    | Old myocardial infarction                                                                | Diagnosis | ICD-9-CM  |
| 413.0  | Angina decubitus                                                                         | Diagnosis | ICD-9-CM  |
| 413.1  | Prinzmetal angina                                                                        | Diagnosis | ICD-9-CM  |
| 413.9  | Other and unspecified angina pectoris                                                    | Diagnosis | ICD-9-CM  |
| 414.00 | Coronary atherosclerosis of unspecified type of vessel, native or graft                  | Diagnosis | ICD-9-CM  |
| 414.01 | Coronary atherosclerosis of native coronary artery                                       | Diagnosis | ICD-9-CM  |
| 414.02 | Coronary atherosclerosis of autologous vein bypass graft                                 | Diagnosis | ICD-9-CM  |
| 414.03 | Coronary atherosclerosis of nonautologous biological bypass graft                        | Diagnosis | ICD-9-CM  |
| 414.04 | Coronary atherosclerosis of artery bypass graft                                          | Diagnosis | ICD-9-CM  |
| 414.05 | Coronary atherosclerosis of unspecified type of bypass graft                             | Diagnosis | ICD-9-CM  |
| 414.06 | Coronary atherosclerosis, of native coronary artery of transplanted heart                | Diagnosis | ICD-9-CM  |
| 414.07 | Coronary atherosclerosis, of bypass graft (artery) (vein) of transplanted heart          | Diagnosis | ICD-9-CM  |
| 414.12 | Dissection of coronary artery                                                            | Diagnosis | ICD-9-CM  |
| 414.2  | Chronic total occlusion of coronary artery                                               | Diagnosis | ICD-9-CM  |
| 414.3  | Coronary atherosclerosis due to lipid rich plaque                                        | Diagnosis | ICD-9-CM  |
| 414.4  | Coronary atherosclerosis due to calcified coronary lesion                                | Diagnosis | ICD-9-CM  |
| 414.8  | Other specified forms of chronic ischemic heart disease                                  | Diagnosis | ICD-9-CM  |
| 414.9  | Unspecified chronic ischemic heart disease                                               | Diagnosis | ICD-9-CM  |
| I20.0  | Unstable angina                                                                          | Diagnosis | ICD-10-CM |
| I20.1  | Angina pectoris with documented spasm                                                    | Diagnosis | ICD-10-CM |
| I20.2  | Refractory angina pectoris                                                               | Diagnosis | ICD-10-CM |
| I20.8  | Other forms of angina pectoris                                                           | Diagnosis | ICD-10-CM |
| I20.9  | Angina pectoris, unspecified                                                             | Diagnosis | ICD-10-CM |
| I21.01 | ST elevation (STEMI) myocardial infarction involving left main coronary artery           | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                             | Code      | Code Type |
|---------|-------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                                         | Category  |           |
| I21.02  | ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery                           | Diagnosis | ICD-10-CM |
| I21.09  | ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall                             | Diagnosis | ICD-10-CM |
| I21.11  | ST elevation (STEMI) myocardial infarction involving right coronary artery                                              | Diagnosis | ICD-10-CM |
| I21.19  | ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall                             | Diagnosis | ICD-10-CM |
| I21.21  | ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery                                    | Diagnosis | ICD-10-CM |
| I21.29  | ST elevation (STEMI) myocardial infarction involving other sites                                                        | Diagnosis | ICD-10-CM |
| I21.3   | ST elevation (STEMI) myocardial infarction of unspecified site                                                          | Diagnosis | ICD-10-CM |
| I21.4   | Non-ST elevation (NSTEMI) myocardial infarction                                                                         | Diagnosis | ICD-10-CM |
| I21.A1  | Myocardial infarction type 2                                                                                            | Diagnosis | ICD-10-CM |
| I21.A9  | Other myocardial infarction type                                                                                        | Diagnosis | ICD-10-CM |
| I22.0   | Subsequent ST elevation (STEMI) myocardial infarction of anterior wall                                                  | Diagnosis | ICD-10-CM |
| I22.1   | Subsequent ST elevation (STEMI) myocardial infarction of inferior wall                                                  | Diagnosis | ICD-10-CM |
| I22.2   | Subsequent non-ST elevation (NSTEMI) myocardial infarction                                                              | Diagnosis | ICD-10-CM |
| I22.8   | Subsequent ST elevation (STEMI) myocardial infarction of other sites                                                    | Diagnosis | ICD-10-CM |
| I22.9   | Subsequent ST elevation (STEMI) myocardial infarction of unspecified site                                               | Diagnosis | ICD-10-CM |
| I23.0   | Hemopericardium as current complication following acute myocardial infarction                                           | Diagnosis | ICD-10-CM |
| I23.1   | Atrial septal defect as current complication following acute myocardial infarction                                      | Diagnosis | ICD-10-CM |
| I23.2   | Ventricular septal defect as current complication following acute myocardial infarction                                 | Diagnosis | ICD-10-CM |
| I23.3   | Rupture of cardiac wall without hemopericardium as current complication following acute myocardial infarction           | Diagnosis | ICD-10-CM |
| I23.4   | Rupture of chordae tendineae as current complication following acute myocardial infarction                              | Diagnosis | ICD-10-CM |
| I23.5   | Rupture of papillary muscle as current complication following acute myocardial infarction                               | Diagnosis | ICD-10-CM |
| I23.6   | Thrombosis of atrium, auricular appendage, and ventricle as current complications following acute myocardial infarction | Diagnosis | ICD-10-CM |
| I23.7   | Postinfarction angina                                                                                                   | Diagnosis | ICD-10-CM |
| I23.8   | Other current complications following acute myocardial infarction                                                       | Diagnosis | ICD-10-CM |
| I24.0   | Acute coronary thrombosis not resulting in myocardial infarction                                                        | Diagnosis | ICD-10-CM |
| I24.1   | Dressler's syndrome                                                                                                     | Diagnosis | ICD-10-CM |
| I24.8   | Other forms of acute ischemic heart disease                                                                             | Diagnosis | ICD-10-CM |
| I24.9   | Acute ischemic heart disease, unspecified                                                                               | Diagnosis | ICD-10-CM |
| I25.10  | Atherosclerotic heart disease of native coronary artery without angina pectoris                                         | Diagnosis | ICD-10-CM |
| I25.110 | Atherosclerotic heart disease of native coronary artery with unstable angina pectoris                                   | Diagnosis | ICD-10-CM |
| I25.111 | Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm                      | Diagnosis | ICD-10-CM |
| I25.112 | Atherosclerotic heart disease of native coronary artery with refractory angina pectoris                                 | Diagnosis | ICD-10-CM |
| I25.118 | Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris                             | Diagnosis | ICD-10-CM |
| I25.119 | Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris                                | Diagnosis | ICD-10-CM |
| I25.2   | Old myocardial infarction                                                                                               | Diagnosis | ICD-10-CM |
| I25.3   | Aneurysm of heart                                                                                                       | Diagnosis | ICD-10-CM |
| I25.41  | Coronary artery aneurysm                                                                                                | Diagnosis | ICD-10-CM |
| I25.42  | Coronary artery dissection                                                                                              | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                            | Code      |           |
|---------|------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                                        | Category  | Code Type |
| I25.5   | Ischemic cardiomyopathy                                                                                                | Diagnosis | ICD-10-CM |
| I25.6   | Silent myocardial ischemia                                                                                             | Diagnosis | ICD-10-CM |
| I25.700 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris                         | Diagnosis | ICD-10-CM |
| I25.701 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm            | Diagnosis | ICD-10-CM |
| I25.702 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with refractory angina pectoris                       | Diagnosis | ICD-10-CM |
| I25.708 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris                   | Diagnosis | ICD-10-CM |
| I25.709 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris                      | Diagnosis | ICD-10-CM |
| I25.710 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris                       | Diagnosis | ICD-10-CM |
| I25.711 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm          | Diagnosis | ICD-10-CM |
| I25.712 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with refractory angina pectoris                     | Diagnosis | ICD-10-CM |
| I25.718 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris                 | Diagnosis | ICD-10-CM |
| I25.719 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris                    | Diagnosis | ICD-10-CM |
| I25.720 | Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris                     | Diagnosis | ICD-10-CM |
| I25.721 | Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm        | Diagnosis | ICD-10-CM |
| I25.722 | Atherosclerosis of autologous artery coronary artery bypass graft(s) with refractory angina pectoris                   | Diagnosis | ICD-10-CM |
| I25.728 | Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris               | Diagnosis | ICD-10-CM |
| I25.729 | Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris                  | Diagnosis | ICD-10-CM |
| I25.730 | Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris              | Diagnosis | ICD-10-CM |
| I25.731 | Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm | Diagnosis | ICD-10-CM |
| I25.732 | Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with refractory angina pectoris            | Diagnosis | ICD-10-CM |
| I25.738 | Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris        | Diagnosis | ICD-10-CM |
| I25.739 | Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris           | Diagnosis | ICD-10-CM |
| I25.750 | Atherosclerosis of native coronary artery of transplanted heart with unstable angina                                   | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b>       | <b>Description</b>                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------------|---------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| I25.751           | Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm          | Diagnosis            | ICD-10-CM        |
| I25.752           | Atherosclerosis of native coronary artery of transplanted heart with refractory angina pectoris                     | Diagnosis            | ICD-10-CM        |
| I25.758           | Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris                 | Diagnosis            | ICD-10-CM        |
| I25.759           | Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris                    | Diagnosis            | ICD-10-CM        |
| I25.760           | Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina                       | Diagnosis            | ICD-10-CM        |
| I25.761           | Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm | Diagnosis            | ICD-10-CM        |
| I25.762           | Atherosclerosis of bypass graft of coronary artery of transplanted heart with refractory angina pectoris            | Diagnosis            | ICD-10-CM        |
| I25.768           | Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris        | Diagnosis            | ICD-10-CM        |
| I25.769           | Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris           | Diagnosis            | ICD-10-CM        |
| I25.790           | Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris                              | Diagnosis            | ICD-10-CM        |
| I25.791           | Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm                 | Diagnosis            | ICD-10-CM        |
| I25.792           | Atherosclerosis of other coronary artery bypass graft(s) with refractory angina pectoris                            | Diagnosis            | ICD-10-CM        |
| I25.798           | Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris                        | Diagnosis            | ICD-10-CM        |
| I25.799           | Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris                           | Diagnosis            | ICD-10-CM        |
| I25.810           | Atherosclerosis of coronary artery bypass graft(s) without angina pectoris                                          | Diagnosis            | ICD-10-CM        |
| I25.811           | Atherosclerosis of native coronary artery of transplanted heart without angina pectoris                             | Diagnosis            | ICD-10-CM        |
| I25.812           | Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris                    | Diagnosis            | ICD-10-CM        |
| I25.82            | Chronic total occlusion of coronary artery                                                                          | Diagnosis            | ICD-10-CM        |
| I25.83            | Coronary atherosclerosis due to lipid rich plaque                                                                   | Diagnosis            | ICD-10-CM        |
| I25.84            | Coronary atherosclerosis due to calcified coronary lesion                                                           | Diagnosis            | ICD-10-CM        |
| I25.89            | Other forms of chronic ischemic heart disease                                                                       | Diagnosis            | ICD-10-CM        |
| I25.9             | Chronic ischemic heart disease, unspecified                                                                         | Diagnosis            | ICD-10-CM        |
| <b>Depression</b> |                                                                                                                     |                      |                  |
| 296.20            | Major depressive disorder, single episode, unspecified                                                              | Diagnosis            | ICD-9-CM         |
| 296.21            | Major depressive disorder, single episode, mild                                                                     | Diagnosis            | ICD-9-CM         |
| 296.22            | Major depressive disorder, single episode, moderate                                                                 | Diagnosis            | ICD-9-CM         |
| 296.23            | Major depressive disorder, single episode, severe, without mention of psychotic behavior                            | Diagnosis            | ICD-9-CM         |
| 296.24            | Major depressive disorder, single episode, severe, specified as with psychotic behavior                             | Diagnosis            | ICD-9-CM         |
| 296.25            | Major depressive disorder, single episode, in partial or unspecified remission                                      | Diagnosis            | ICD-9-CM         |
| 296.26            | Major depressive disorder, single episode in full remission                                                         | Diagnosis            | ICD-9-CM         |
| 296.30            | Major depressive disorder, recurrent episode, unspecified                                                           | Diagnosis            | ICD-9-CM         |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                | Description                                                                                 | Code      |           |
|---------------------|---------------------------------------------------------------------------------------------|-----------|-----------|
|                     |                                                                                             | Category  | Code Type |
| 296.31              | Major depressive disorder, recurrent episode, mild                                          | Diagnosis | ICD-9-CM  |
| 296.32              | Major depressive disorder, recurrent episode, moderate                                      | Diagnosis | ICD-9-CM  |
| 296.33              | Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior | Diagnosis | ICD-9-CM  |
| 296.34              | Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior  | Diagnosis | ICD-9-CM  |
| 296.35              | Major depressive disorder, recurrent episode, in partial or unspecified remission           | Diagnosis | ICD-9-CM  |
| 296.36              | Major depressive disorder, recurrent episode, in full remission                             | Diagnosis | ICD-9-CM  |
| 296.89              | Other and unspecified bipolar disorders                                                     | Diagnosis | ICD-9-CM  |
| 296.99              | Other specified episodic mood disorder                                                      | Diagnosis | ICD-9-CM  |
| 298.0               | Depressive type psychosis                                                                   | Diagnosis | ICD-9-CM  |
| 300.4               | Dysthymic disorder                                                                          | Diagnosis | ICD-9-CM  |
| 301.12              | Chronic depressive personality disorder                                                     | Diagnosis | ICD-9-CM  |
| 309.0               | Adjustment disorder with depressed mood                                                     | Diagnosis | ICD-9-CM  |
| 309.1               | Prolonged depressive reaction as adjustment reaction                                        | Diagnosis | ICD-9-CM  |
| 309.28              | Adjustment disorder with mixed anxiety and depressed mood                                   | Diagnosis | ICD-9-CM  |
| 311                 | Depressive disorder, not elsewhere classified                                               | Diagnosis | ICD-9-CM  |
| F32.0               | Major depressive disorder, single episode, mild                                             | Diagnosis | ICD-10-CM |
| F32.1               | Major depressive disorder, single episode, moderate                                         | Diagnosis | ICD-10-CM |
| F32.2               | Major depressive disorder, single episode, severe without psychotic features                | Diagnosis | ICD-10-CM |
| F32.3               | Major depressive disorder, single episode, severe with psychotic features                   | Diagnosis | ICD-10-CM |
| F32.4               | Major depressive disorder, single episode, in partial remission                             | Diagnosis | ICD-10-CM |
| F32.5               | Major depressive disorder, single episode, in full remission                                | Diagnosis | ICD-10-CM |
| F32.9               | Major depressive disorder, single episode, unspecified                                      | Diagnosis | ICD-10-CM |
| F33.0               | Major depressive disorder, recurrent, mild                                                  | Diagnosis | ICD-10-CM |
| F33.1               | Major depressive disorder, recurrent, moderate                                              | Diagnosis | ICD-10-CM |
| F33.2               | Major depressive disorder, recurrent severe without psychotic features                      | Diagnosis | ICD-10-CM |
| F33.3               | Major depressive disorder, recurrent, severe with psychotic symptoms                        | Diagnosis | ICD-10-CM |
| F33.40              | Major depressive disorder, recurrent, in remission, unspecified                             | Diagnosis | ICD-10-CM |
| F33.41              | Major depressive disorder, recurrent, in partial remission                                  | Diagnosis | ICD-10-CM |
| F33.42              | Major depressive disorder, recurrent, in full remission                                     | Diagnosis | ICD-10-CM |
| F33.8               | Other recurrent depressive disorders                                                        | Diagnosis | ICD-10-CM |
| F33.9               | Major depressive disorder, recurrent, unspecified                                           | Diagnosis | ICD-10-CM |
| F34.1               | Dysthymic disorder                                                                          | Diagnosis | ICD-10-CM |
| F43.21              | Adjustment disorder with depressed mood                                                     | Diagnosis | ICD-10-CM |
| F43.23              | Adjustment disorder with mixed anxiety and depressed mood                                   | Diagnosis | ICD-10-CM |
| <b>Dyslipidemia</b> |                                                                                             |           |           |
| 272.0               | Pure hypercholesterolemia                                                                   | Diagnosis | ICD-9-CM  |
| 272.1               | Pure hyperglyceridemia                                                                      | Diagnosis | ICD-9-CM  |
| 272.2               | Mixed hyperlipidemia                                                                        | Diagnosis | ICD-9-CM  |
| 272.3               | Hyperchylomicronemia                                                                        | Diagnosis | ICD-9-CM  |
| 272.4               | Other and unspecified hyperlipidemia                                                        | Diagnosis | ICD-9-CM  |
| 272.5               | Lipoprotein deficiencies                                                                    | Diagnosis | ICD-9-CM  |
| 272.9               | Unspecified disorder of lipid metabolism                                                    | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                                                                                                         | Description                                                                                                            | Code      |           |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|                                                                                                              |                                                                                                                        | Category  | Code Type |
| E78.0                                                                                                        | Elevated Lipoprotein(a)                                                                                                | Diagnosis | ICD-10-CM |
| E78.00                                                                                                       | Pure hypercholesterolemia, unspecified                                                                                 | Diagnosis | ICD-10-CM |
| E78.01                                                                                                       | Familial hypercholesterolemia                                                                                          | Diagnosis | ICD-10-CM |
| E78.1                                                                                                        | Pure hyperglyceridemia                                                                                                 | Diagnosis | ICD-10-CM |
| E78.2                                                                                                        | Mixed hyperlipidemia                                                                                                   | Diagnosis | ICD-10-CM |
| E78.3                                                                                                        | Hyperchylomicronemia                                                                                                   | Diagnosis | ICD-10-CM |
| E78.4                                                                                                        | Other hyperlipidemia                                                                                                   | Diagnosis | ICD-10-CM |
| E78.41                                                                                                       | Other hyperlipidemia                                                                                                   | Diagnosis | ICD-10-CM |
| E78.49                                                                                                       | Pure hypercholesterolemia                                                                                              | Diagnosis | ICD-10-CM |
| E78.5                                                                                                        | Hyperlipidemia, unspecified                                                                                            | Diagnosis | ICD-10-CM |
| E78.6                                                                                                        | Lipoprotein deficiency                                                                                                 | Diagnosis | ICD-10-CM |
| E78.8                                                                                                        | Other disorders of lipoprotein metabolism                                                                              | Diagnosis | ICD-10-CM |
| E78.9                                                                                                        | Disorder of lipoprotein metabolism, unspecified                                                                        | Diagnosis | ICD-10-CM |
| <b>Frailty Indicators (Dementia Therapies, Loop Diuretics, Digoxin, Wheelchair/Home Hospital Bed Claims)</b> |                                                                                                                        |           |           |
| E0100                                                                                                        | Cane, includes canes of all materials, adjustable or fixed, with tip                                                   | Procedure | HCPCS     |
| E0105                                                                                                        | Cane, quad or three-prong, includes canes of all materials, adjustable or fixed, with tips                             | Procedure | HCPCS     |
| E0110                                                                                                        | Crutches, forearm, includes crutches of various materials, adjustable or fixed, pair, complete with tips and handgrips | Procedure | HCPCS     |
| E0111                                                                                                        | Crutch, forearm, includes crutches of various materials, adjustable or fixed, each, with tip and handgrips             | Procedure | HCPCS     |
| E0112                                                                                                        | Crutches, underarm, wood, adjustable or fixed, pair, with pads, tips, and handgrips                                    | Procedure | HCPCS     |
| E0113                                                                                                        | Crutch, underarm, wood, adjustable or fixed, each, with pad, tip, and handgrip                                         | Procedure | HCPCS     |
| E0114                                                                                                        | Crutches, underarm, other than wood, adjustable or fixed, pair, with pads, tips, and handgrips                         | Procedure | HCPCS     |
| E0116                                                                                                        | Crutch, underarm, other than wood, adjustable or fixed, with pad, tip, handgrip, with or without shock absorber, each  | Procedure | HCPCS     |
| E0117                                                                                                        | Crutch, underarm, articulating, spring assisted, each                                                                  | Procedure | HCPCS     |
| E0118                                                                                                        | Crutch substitute, lower leg platform, with or without wheels, each                                                    | Procedure | HCPCS     |
| E0130                                                                                                        | Walker, rigid (pickup), adjustable or fixed height                                                                     | Procedure | HCPCS     |
| E0135                                                                                                        | Walker, folding (pickup), adjustable or fixed height                                                                   | Procedure | HCPCS     |
| E0140                                                                                                        | Walker, with trunk support, adjustable or fixed height, any type                                                       | Procedure | HCPCS     |
| E0141                                                                                                        | Walker, rigid, wheeled, adjustable or fixed height                                                                     | Procedure | HCPCS     |
| E0143                                                                                                        | Walker, folding, wheeled, adjustable or fixed height                                                                   | Procedure | HCPCS     |
| E0144                                                                                                        | Walker, enclosed, four-sided framed, rigid or folding, wheeled with posterior seat                                     | Procedure | HCPCS     |
| E0147                                                                                                        | Walker, heavy-duty, multiple braking system, variable wheel resistance                                                 | Procedure | HCPCS     |
| E0148                                                                                                        | Walker, heavy-duty, without wheels, rigid or folding, any type, each                                                   | Procedure | HCPCS     |
| E0149                                                                                                        | Walker, heavy-duty, wheeled, rigid or folding, any type                                                                | Procedure | HCPCS     |
| E0153                                                                                                        | Platform attachment, forearm crutch, each                                                                              | Procedure | HCPCS     |
| E0154                                                                                                        | Platform attachment, walker, each                                                                                      | Procedure | HCPCS     |
| E0155                                                                                                        | Wheel attachment, rigid pick-up walker, per pair                                                                       | Procedure | HCPCS     |
| E0156                                                                                                        | Seat attachment, walker                                                                                                | Procedure | HCPCS     |
| E0157                                                                                                        | Crutch attachment, walker, each                                                                                        | Procedure | HCPCS     |
| E0158                                                                                                        | Leg extensions for walker, per set of four                                                                             | Procedure | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                          | Code      |           |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                      | Category  | Code Type |
| E0159 | Brake attachment for wheeled walker, replacement, each                                                                                                               | Procedure | HCPCS     |
| E0250 | Hospital bed, fixed height, with any type side rails, with mattress                                                                                                  | Procedure | HCPCS     |
| E0251 | Hospital bed, fixed height, with any type side rails, without mattress                                                                                               | Procedure | HCPCS     |
| E0255 | Hospital bed, variable height, hi-lo, with any type side rails, with mattress                                                                                        | Procedure | HCPCS     |
| E0256 | Hospital bed, variable height, hi-lo, with any type side rails, without mattress                                                                                     | Procedure | HCPCS     |
| E0260 | Hospital bed, semi-electric (head and foot adjustment), with any type side rails, with mattress                                                                      | Procedure | HCPCS     |
| E0261 | Hospital bed, semi-electric (head and foot adjustment), with any type side rails, without mattress                                                                   | Procedure | HCPCS     |
| E0265 | Hospital bed, total electric (head, foot, and height adjustments), with any type side rails, with mattress                                                           | Procedure | HCPCS     |
| E0266 | Hospital bed, total electric (head, foot, and height adjustments), with any type side rails, without mattress                                                        | Procedure | HCPCS     |
| E0270 | Hospital bed, institutional type includes: oscillating, circulating and Stryker frame, with mattress                                                                 | Procedure | HCPCS     |
| E0271 | Mattress, innerspring                                                                                                                                                | Procedure | HCPCS     |
| E0272 | Mattress, foam rubber                                                                                                                                                | Procedure | HCPCS     |
| E0273 | Bed board                                                                                                                                                            | Procedure | HCPCS     |
| E0274 | Over-bed table                                                                                                                                                       | Procedure | HCPCS     |
| E0275 | Bed pan, standard, metal or plastic                                                                                                                                  | Procedure | HCPCS     |
| E0276 | Bed pan, fracture, metal or plastic                                                                                                                                  | Procedure | HCPCS     |
| E0277 | Powered pressure-reducing air mattress                                                                                                                               | Procedure | HCPCS     |
| E0280 | Bed cradle, any type                                                                                                                                                 | Procedure | HCPCS     |
| E0290 | Hospital bed, fixed height, without side rails, with mattress                                                                                                        | Procedure | HCPCS     |
| E0291 | Hospital bed, fixed height, without side rails, without mattress                                                                                                     | Procedure | HCPCS     |
| E0292 | Hospital bed, variable height, hi-lo, without side rails, with mattress                                                                                              | Procedure | HCPCS     |
| E0293 | Hospital bed, variable height, hi-lo, without side rails, without mattress                                                                                           | Procedure | HCPCS     |
| E0294 | Hospital bed, semi-electric (head and foot adjustment), without side rails, with mattress                                                                            | Procedure | HCPCS     |
| E0295 | Hospital bed, semi-electric (head and foot adjustment), without side rails, without mattress                                                                         | Procedure | HCPCS     |
| E0296 | Hospital bed, total electric (head, foot, and height adjustments), without side rails, with mattress                                                                 | Procedure | HCPCS     |
| E0297 | Hospital bed, total electric (head, foot, and height adjustments), without side rails, without mattress                                                              | Procedure | HCPCS     |
| E0300 | Pediatric crib, hospital grade, fully enclosed, with or without top enclosure                                                                                        | Procedure | HCPCS     |
| E0301 | Hospital bed, heavy-duty, extra wide, with weight capacity greater than 350 pounds, but less than or equal to 600 pounds, with any type side rails, without mattress | Procedure | HCPCS     |
| E0302 | Hospital bed, extra heavy-duty, extra wide, with weight capacity greater than 600 pounds, with any type side rails, without mattress                                 | Procedure | HCPCS     |
| E0303 | Hospital bed, heavy-duty, extra wide, with weight capacity greater than 350 pounds, but less than or equal to 600 pounds, with any type side rails, with mattress    | Procedure | HCPCS     |
| E0304 | Hospital bed, extra heavy-duty, extra wide, with weight capacity greater than 600 pounds, with any type side rails, with mattress                                    | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                | Code      | Code Type |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                            | Category  |           |
| E0305 | Bedside rails, half-length                                                                                                                                                 | Procedure | HCPCS     |
| E0310 | Bedside rails, full-length                                                                                                                                                 | Procedure | HCPCS     |
| E0315 | Bed accessory: board, table, or support device, any type                                                                                                                   | Procedure | HCPCS     |
| E0316 | Safety enclosure frame/canopy for use with hospital bed, any type                                                                                                          | Procedure | HCPCS     |
| E0325 | Urinal; male, jug-type, any material                                                                                                                                       | Procedure | HCPCS     |
| E0326 | Urinal; female, jug-type, any material                                                                                                                                     | Procedure | HCPCS     |
| E0328 | Hospital bed, pediatric, manual, 360 degree side enclosures, top of headboard, footboard and side rails up to 24 in above the spring, includes mattress                    | Procedure | HCPCS     |
| E0329 | Hospital bed, pediatric, electric or semi-electric, 360 degree side enclosures, top of headboard, footboard and side rails up to 24 in above the spring, includes mattress | Procedure | HCPCS     |
| E0350 | Control unit for electronic bowel irrigation/evacuation system                                                                                                             | Procedure | HCPCS     |
| E0352 | Disposable pack (water reservoir bag, speculum, valving mechanism, and collection bag/box) for use with the electronic bowel irrigation/evacuation system                  | Procedure | HCPCS     |
| E0370 | Air pressure elevator for heel                                                                                                                                             | Procedure | HCPCS     |
| E0371 | Nonpowered advanced pressure reducing overlay for mattress, standard mattress length and width                                                                             | Procedure | HCPCS     |
| E0372 | Powered air overlay for mattress, standard mattress length and width                                                                                                       | Procedure | HCPCS     |
| E0373 | Nonpowered advanced pressure reducing mattress                                                                                                                             | Procedure | HCPCS     |
| E0950 | Wheelchair accessory, tray, each                                                                                                                                           | Procedure | HCPCS     |
| E0951 | Heel loop/holder, any type, with or without ankle strap, each                                                                                                              | Procedure | HCPCS     |
| E0952 | Toe loop/holder, any type, each                                                                                                                                            | Procedure | HCPCS     |
| E0953 | Wheelchair accessory, lateral thigh or knee support, any type including fixed mounting hardware, each                                                                      | Procedure | HCPCS     |
| E0954 | Wheelchair accessory, foot box, any type, includes attachment and mounting hardware, each foot                                                                             | Procedure | HCPCS     |
| E0955 | Wheelchair accessory, headrest, cushioned, any type, including fixed mounting hardware, each                                                                               | Procedure | HCPCS     |
| E0956 | Wheelchair accessory, lateral trunk or hip support, any type, including fixed mounting hardware, each                                                                      | Procedure | HCPCS     |
| E0957 | Wheelchair accessory, medial thigh support, any type, including fixed mounting hardware, each                                                                              | Procedure | HCPCS     |
| E0958 | Manual wheelchair accessory, one-arm drive attachment, each                                                                                                                | Procedure | HCPCS     |
| E0959 | Manual wheelchair accessory, adapter for amputee, each                                                                                                                     | Procedure | HCPCS     |
| E0960 | Wheelchair accessory, shoulder harness/straps or chest strap, including any type mounting hardware                                                                         | Procedure | HCPCS     |
| E0961 | Manual wheelchair accessory, wheel lock brake extension (handle), each                                                                                                     | Procedure | HCPCS     |
| E0966 | Manual wheelchair accessory, headrest extension, each                                                                                                                      | Procedure | HCPCS     |
| E0967 | Manual wheelchair accessory, hand rim with projections, any type, replacement only,                                                                                        | Procedure | HCPCS     |
| E0968 | Commode seat, wheelchair                                                                                                                                                   | Procedure | HCPCS     |
| E0969 | Narrowing device, wheelchair                                                                                                                                               | Procedure | HCPCS     |
| E0970 | No. 2 footplates, except for elevating legrest                                                                                                                             | Procedure | HCPCS     |
| E0971 | Manual wheelchair accessory, antitipping device, each                                                                                                                      | Procedure | HCPCS     |
| E0973 | Wheelchair accessory, adjustable height, detachable armrest, complete assembly, each                                                                                       | Procedure | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                       | Code      | Code Type |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       | Category                                                                                                                                          |           |           |
| E0974 | Manual wheelchair accessory, antirollback device, each                                                                                            | Procedure | HCPCS     |
| E0978 | Wheelchair accessory, positioning belt/safety belt/pelvic strap, each                                                                             | Procedure | HCPCS     |
| E0980 | Safety vest, wheelchair                                                                                                                           | Procedure | HCPCS     |
| E0981 | Wheelchair accessory, seat upholstery, replacement only, each                                                                                     | Procedure | HCPCS     |
| E0982 | Wheelchair accessory, back upholstery, replacement only, each                                                                                     | Procedure | HCPCS     |
| E0983 | Manual wheelchair accessory, power add-on to convert manual wheelchair to motorized wheelchair, joystick control                                  | Procedure | HCPCS     |
| E0984 | Manual wheelchair accessory, power add-on to convert manual wheelchair to motorized wheelchair, tiller control                                    | Procedure | HCPCS     |
| E0985 | Wheelchair accessory, seat lift mechanism                                                                                                         | Procedure | HCPCS     |
| E0986 | Manual wheelchair accessory, push-rim activated power assist system                                                                               | Procedure | HCPCS     |
| E0988 | Manual wheelchair accessory, lever-activated, wheel drive, pair                                                                                   | Procedure | HCPCS     |
| E0990 | Wheelchair accessory, elevating legrest, complete assembly, each                                                                                  | Procedure | HCPCS     |
| E0992 | Manual wheelchair accessory, solid seat insert                                                                                                    | Procedure | HCPCS     |
| E0994 | Armrest, each                                                                                                                                     | Procedure | HCPCS     |
| E0995 | Wheelchair accessory, calf rest/pad, replacement only, each                                                                                       | Procedure | HCPCS     |
| E1002 | Wheelchair accessory, power seating system, tilt only                                                                                             | Procedure | HCPCS     |
| E1003 | Wheelchair accessory, power seating system, recline only, without shear reduction                                                                 | Procedure | HCPCS     |
| E1004 | Wheelchair accessory, power seating system, recline only, with mechanical shear                                                                   | Procedure | HCPCS     |
| E1005 | Wheelchair accessory, power seating system, recline only, with power shear reduction                                                              | Procedure | HCPCS     |
| E1006 | Wheelchair accessory, power seating system, combination tilt and recline, without shear reduction                                                 | Procedure | HCPCS     |
| E1007 | Wheelchair accessory, power seating system, combination tilt and recline, with mechanical shear reduction                                         | Procedure | HCPCS     |
| E1008 | Wheelchair accessory, power seating system, combination tilt and recline, with power shear reduction                                              | Procedure | HCPCS     |
| E1009 | Wheelchair accessory, addition to power seating system, mechanically linked leg elevation system, including pushrod and legrest, each             | Procedure | HCPCS     |
| E1010 | Wheelchair accessory, addition to power seating system, power leg elevation system, including legrest, pair                                       | Procedure | HCPCS     |
| E1011 | Modification to pediatric size wheelchair, width adjustment package (not to be dispensed with initial chair)                                      | Procedure | HCPCS     |
| E1012 | Wheelchair accessory, addition to power seating system, center mount power elevating leg rest/platform, complete system, any type, each           | Procedure | HCPCS     |
| E1014 | Reclining back, addition to pediatric size wheelchair                                                                                             | Procedure | HCPCS     |
| E1015 | Shock absorber for manual wheelchair, each                                                                                                        | Procedure | HCPCS     |
| E1016 | Shock absorber for power wheelchair, each                                                                                                         | Procedure | HCPCS     |
| E1017 | Heavy-duty shock absorber for heavy-duty or extra heavy-duty manual wheelchair, each                                                              | Procedure | HCPCS     |
| E1018 | Heavy-duty shock absorber for heavy-duty or extra heavy-duty power wheelchair, each                                                               | Procedure | HCPCS     |
| E1020 | Residual limb support system for wheelchair, any type                                                                                             | Procedure | HCPCS     |
| E1028 | Wheelchair accessory, manual swingaway, retractable or removable mounting hardware for joystick, other control interface or positioning accessory | Procedure | HCPCS     |
| E1029 | Wheelchair accessory, ventilator tray, fixed                                                                                                      | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                     | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                 | Category  | Code Type |
| E1030 | Wheelchair accessory, ventilator tray, gimbaled                                                                                                 | Procedure | HCPCS     |
| E1031 | Rollabout chair, any and all types with castors 5 in or greater                                                                                 | Procedure | HCPCS     |
| E1035 | Multi-positional patient transfer system, with integrated seat, operated by care giver, patient weight capacity up to and including 300 lbs     | Procedure | HCPCS     |
| E1036 | Multi-positional patient transfer system, extra-wide, with integrated seat, operated by caregiver, patient weight capacity greater than 300 lbs | Procedure | HCPCS     |
| E1037 | Transport chair, pediatric size                                                                                                                 | Procedure | HCPCS     |
| E1038 | Transport chair, adult size, patient weight capacity up to and including 300 pounds                                                             | Procedure | HCPCS     |
| E1039 | Transport chair, adult size, heavy-duty, patient weight capacity greater than 300 pounds                                                        | Procedure | HCPCS     |
| E1050 | Fully-reclining wheelchair, fixed full-length arms, swing-away detachable elevating legrests                                                    | Procedure | HCPCS     |
| E1060 | Fully-reclining wheelchair, detachable arms, desk or full-length, swing-away detachable elevating legrests                                      | Procedure | HCPCS     |
| E1070 | Fully-reclining wheelchair, detachable arms (desk or full-length) swing-away detachable footrest                                                | Procedure | HCPCS     |
| E1083 | Hemi-wheelchair, fixed full-length arms, swing-away detachable elevating legrest                                                                | Procedure | HCPCS     |
| E1084 | Hemi-wheelchair, detachable arms desk or full-length arms, swing-away detachable elevating legrests                                             | Procedure | HCPCS     |
| E1085 | Hemi-wheelchair, fixed full-length arms, swing-away detachable footrests                                                                        | Procedure | HCPCS     |
| E1086 | Hemi-wheelchair, detachable arms, desk or full-length, swing-away detachable footrests                                                          | Procedure | HCPCS     |
| E1087 | High strength lightweight wheelchair, fixed full-length arms, swing-away detachable elevating legrests                                          | Procedure | HCPCS     |
| E1088 | High strength lightweight wheelchair, detachable arms desk or full-length, swing-away detachable elevating legrests                             | Procedure | HCPCS     |
| E1089 | High-strength lightweight wheelchair, fixed-length arms, swing-away detachable footrest                                                         | Procedure | HCPCS     |
| E1090 | High-strength lightweight wheelchair, detachable arms, desk or full-length, swing-away detachable footrests                                     | Procedure | HCPCS     |
| E1092 | Wide heavy-duty wheel chair, detachable arms (desk or full-length), swing-away detachable elevating legrests                                    | Procedure | HCPCS     |
| E1093 | Wide heavy-duty wheelchair, detachable arms, desk or full-length arms, swing-away detachable footrests                                          | Procedure | HCPCS     |
| E1100 | Semi-reclining wheelchair, fixed full-length arms, swing-away detachable elevating legrests                                                     | Procedure | HCPCS     |
| E1110 | Semi-reclining wheelchair, detachable arms (desk or full-length) elevating legrest                                                              | Procedure | HCPCS     |
| E1130 | Standard wheelchair, fixed full-length arms, fixed or swing-away detachable footrests                                                           | Procedure | HCPCS     |
| E1140 | Wheelchair, detachable arms, desk or full-length, swing-away detachable footrests                                                               | Procedure | HCPCS     |
| E1150 | Wheelchair, detachable arms, desk or full-length swing-away detachable elevating legrests                                                       | Procedure | HCPCS     |
| E1160 | Wheelchair, fixed full-length arms, swing-away detachable elevating legrests                                                                    | Procedure | HCPCS     |
| E1161 | Manual adult size wheelchair, includes tilt in space                                                                                            | Procedure | HCPCS     |
| E1170 | Amputee wheelchair, fixed full-length arms, swing-away detachable elevating legrests                                                            | Procedure | HCPCS     |
| E1171 | Amputee wheelchair, fixed full-length arms, without footrests or legrest                                                                        | Procedure | HCPCS     |
| E1172 | Amputee wheelchair, detachable arms (desk or full-length) without footrests or legrest                                                          | Procedure | HCPCS     |
| E1180 | Amputee wheelchair, detachable arms (desk or full-length) swing-away detachable footrests                                                       | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                         | Code      |           |
|-------|---------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                     | Category  | Code Type |
| E1190 | Amputee wheelchair, detachable arms (desk or full-length) swing-away detachable elevating legrests                  | Procedure | HCPCS     |
| E1195 | Heavy-duty wheelchair, fixed full-length arms, swing-away detachable elevating legrests                             | Procedure | HCPCS     |
| E1200 | Amputee wheelchair, fixed full-length arms, swing-away detachable footrest                                          | Procedure | HCPCS     |
| E1220 | Wheelchair; specially sized or constructed, (indicate brand name, model number, if any) and justification           | Procedure | HCPCS     |
| E1221 | Wheelchair with fixed arm, footrests                                                                                | Procedure | HCPCS     |
| E1222 | Wheelchair with fixed arm, elevating legrests                                                                       | Procedure | HCPCS     |
| E1223 | Wheelchair with detachable arms, footrests                                                                          | Procedure | HCPCS     |
| E1224 | Wheelchair with detachable arms, elevating legrests                                                                 | Procedure | HCPCS     |
| E1225 | Wheelchair accessory, manual semi-reclining back, (recline greater than 15 degrees, but less than 80 degrees), each | Procedure | HCPCS     |
| E1226 | Wheelchair accessory, manual fully reclining back, (recline greater than 80 degrees), each                          | Procedure | HCPCS     |
| E1227 | Special height arms for wheelchair                                                                                  | Procedure | HCPCS     |
| E1228 | Special back height for wheelchair                                                                                  | Procedure | HCPCS     |
| E1229 | Wheelchair, pediatric size, not otherwise specified                                                                 | Procedure | HCPCS     |
| E1230 | Power operated vehicle (three- or four-wheel nonhighway), specify brand name and model number                       | Procedure | HCPCS     |
| E1231 | Wheelchair, pediatric size, tilt-in-space, rigid, adjustable, with seating system                                   | Procedure | HCPCS     |
| E1232 | Wheelchair, pediatric size, tilt-in-space, folding, adjustable, with seating system                                 | Procedure | HCPCS     |
| E1233 | Wheelchair, pediatric size, tilt-in-space, rigid, adjustable, without seating system                                | Procedure | HCPCS     |
| E1234 | Wheelchair, pediatric size, tilt-in-space, folding, adjustable, without seating system                              | Procedure | HCPCS     |
| E1235 | Wheelchair, pediatric size, rigid, adjustable, with seating system                                                  | Procedure | HCPCS     |
| E1236 | Wheelchair, pediatric size, folding, adjustable, with seating system                                                | Procedure | HCPCS     |
| E1237 | Wheelchair, pediatric size, rigid, adjustable, without seating system                                               | Procedure | HCPCS     |
| E1238 | Wheelchair, pediatric size, folding, adjustable, without seating system                                             | Procedure | HCPCS     |
| E1239 | Power wheelchair, pediatric size, not otherwise specified                                                           | Procedure | HCPCS     |
| E1240 | Lightweight wheelchair, detachable arms, (desk or full-length) swing-away detachable, elevating legrest             | Procedure | HCPCS     |
| E1250 | Lightweight wheelchair, fixed full-length arms, swing-away detachable footrest                                      | Procedure | HCPCS     |
| E1260 | Lightweight wheelchair, detachable arms (desk or full-length) swing-away detachable footrest                        | Procedure | HCPCS     |
| E1270 | Lightweight wheelchair, fixed full-length arms, swing-away detachable elevating legrests                            | Procedure | HCPCS     |
| E1280 | Heavy-duty wheelchair, detachable arms (desk or full-length) elevating legrests                                     | Procedure | HCPCS     |
| E1285 | Heavy-duty wheelchair, fixed full-length arms, swing-away detachable footrest                                       | Procedure | HCPCS     |
| E1290 | Heavy-duty wheelchair, detachable arms (desk or full-length) swing-away detachable footrest                         | Procedure | HCPCS     |
| E1295 | Heavy-duty wheelchair, fixed full-length arms, elevating legrest                                                    | Procedure | HCPCS     |
| E1296 | Special wheelchair seat height from floor                                                                           | Procedure | HCPCS     |
| E1297 | Special wheelchair seat depth, by upholstery                                                                        | Procedure | HCPCS     |
| E1298 | Special wheelchair seat depth and/or width, by construction                                                         | Procedure | HCPCS     |
| E2201 | Manual wheelchair accessory, nonstandard seat frame, width greater than or equal to 20 in and less than 24 in       | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                  | Code      | Code Type |
|-------|------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       | Category                                                                                                                     |           |           |
| E2202 | Manual wheelchair accessory, nonstandard seat frame width, 24-27 in                                                          | Procedure | HCPCS     |
| E2203 | Manual wheelchair accessory, nonstandard seat frame depth, 20 to less than 22 in                                             | Procedure | HCPCS     |
| E2204 | Manual wheelchair accessory, nonstandard seat frame depth, 22 to 25 in                                                       | Procedure | HCPCS     |
| E2205 | Manual wheelchair accessory, handrim without projections (includes ergonomic or contoured), any type, replacement only, each | Procedure | HCPCS     |
| E2206 | Manual wheelchair accessory, wheel lock assembly, complete, replacement only, each                                           | Procedure | HCPCS     |
| E2207 | Wheelchair accessory, crutch and cane holder, each                                                                           | Procedure | HCPCS     |
| E2208 | Wheelchair accessory, cylinder tank carrier, each                                                                            | Procedure | HCPCS     |
| E2209 | Accessory, arm trough, with or without hand support, each                                                                    | Procedure | HCPCS     |
| E2210 | Wheelchair accessory, bearings, any type, replacement only, each                                                             | Procedure | HCPCS     |
| E2211 | Manual wheelchair accessory, pneumatic propulsion tire, any size, each                                                       | Procedure | HCPCS     |
| E2212 | Manual wheelchair accessory, tube for pneumatic propulsion tire, any size, each                                              | Procedure | HCPCS     |
| E2213 | Manual wheelchair accessory, insert for pneumatic propulsion tire (removable), any type, any size, each                      | Procedure | HCPCS     |
| E2214 | Manual wheelchair accessory, pneumatic caster tire, any size, each                                                           | Procedure | HCPCS     |
| E2215 | Manual wheelchair accessory, tube for pneumatic caster tire, any size, each                                                  | Procedure | HCPCS     |
| E2216 | Manual wheelchair accessory, foam filled propulsion tire, any size, each                                                     | Procedure | HCPCS     |
| E2217 | Manual wheelchair accessory, foam filled caster tire, any size, each                                                         | Procedure | HCPCS     |
| E2218 | Manual wheelchair accessory, foam propulsion tire, any size, each                                                            | Procedure | HCPCS     |
| E2219 | Manual wheelchair accessory, foam caster tire, any size, each                                                                | Procedure | HCPCS     |
| E2220 | Manual wheelchair accessory, solid (rubber/plastic) propulsion tire, any size, replacement only, each                        | Procedure | HCPCS     |
| E2221 | Manual wheelchair accessory, solid (rubber/plastic) caster tire (removable), any size, replacement only, each                | Procedure | HCPCS     |
| E2222 | Manual wheelchair accessory, solid (rubber/plastic) caster tire with integrated wheel, any size, replacement only, each      | Procedure | HCPCS     |
| E2224 | Manual wheelchair accessory, propulsion wheel excludes tire, any size, replacement only, each                                | Procedure | HCPCS     |
| E2225 | Manual wheelchair accessory, caster wheel excludes tire, any size, replacement only, each                                    | Procedure | HCPCS     |
| E2226 | Manual wheelchair accessory, caster fork, any size, replacement only, each                                                   | Procedure | HCPCS     |
| E2227 | Manual wheelchair accessory, gear reduction drive wheel, each                                                                | Procedure | HCPCS     |
| E2228 | Manual wheelchair accessory, wheel braking system and lock, complete, each                                                   | Procedure | HCPCS     |
| E2230 | Manual wheelchair accessory, manual standing system                                                                          | Procedure | HCPCS     |
| E2231 | Manual wheelchair accessory, solid seat support base (replaces sling seat), includes any type mounting hardware              | Procedure | HCPCS     |
| E2291 | Back, planar, for pediatric size wheelchair including fixed attaching hardware                                               | Procedure | HCPCS     |
| E2292 | Seat, planar, for pediatric size wheelchair including fixed attaching hardware                                               | Procedure | HCPCS     |
| E2293 | Back, contoured, for pediatric size wheelchair including fixed attaching hardware                                            | Procedure | HCPCS     |
| E2294 | Seat, contoured, for pediatric size wheelchair including fixed attaching hardware                                            | Procedure | HCPCS     |
| E2300 | Wheelchair accessory, power seat elevation system, any type                                                                  | Procedure | HCPCS     |
| E2301 | Wheelchair accessory, power standing system, any type                                                                        | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                        | Code      |           |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                    | Category  | Code Type |
| E2310 | Power wheelchair accessory, electronic connection between wheelchair controller and one power seating system motor, including all related electronics, indicator feature, mechanical function selection switch, and fixed mounting hardware        | Procedure | HCPCS     |
| E2311 | Power wheelchair accessory, electronic connection between wheelchair controller and 2 or more power seating system motors, including all related electronics, indicator feature, mechanical function selection switch, and fixed mounting hardware | Procedure | HCPCS     |
| E2312 | Power wheelchair accessory, hand or chin control interface, mini-proportional remote joystick, proportional, including fixed mounting hardware                                                                                                     | Procedure | HCPCS     |
| E2313 | Power wheelchair accessory, harness for upgrade to expandable controller, including all fasteners, connectors and mounting hardware, each                                                                                                          | Procedure | HCPCS     |
| E2321 | Power wheelchair accessory, hand control interface, remote joystick, nonproportional, including all related electronics, mechanical stop switch, and fixed mounting hardware                                                                       | Procedure | HCPCS     |
| E2322 | Power wheelchair accessory, hand control interface, multiple mechanical switches, nonproportional, including all related electronics, mechanical stop switch, and fixed mounting hardware                                                          | Procedure | HCPCS     |
| E2323 | Power wheelchair accessory, specialty joystick handle for hand control interface, prefabricated                                                                                                                                                    | Procedure | HCPCS     |
| E2324 | Power wheelchair accessory, chin cup for chin control interface                                                                                                                                                                                    | Procedure | HCPCS     |
| E2325 | Power wheelchair accessory, sip and puff interface, nonproportional, including all related electronics, mechanical stop switch, and manual swingaway mounting hardware                                                                             | Procedure | HCPCS     |
| E2326 | Power wheelchair accessory, breath tube kit for sip and puff interface                                                                                                                                                                             | Procedure | HCPCS     |
| E2327 | Power wheelchair accessory, head control interface, mechanical, proportional, including all related electronics, mechanical direction change switch, and fixed mounting hardware                                                                   | Procedure | HCPCS     |
| E2328 | Power wheelchair accessory, head control or extremity control interface, electronic, proportional, including all related electronics and fixed mounting hardware                                                                                   | Procedure | HCPCS     |
| E2329 | Power wheelchair accessory, head control interface, contact switch mechanism, nonproportional, including all related electronics, mechanical stop switch, mechanical direction change switch, head array, and fixed mounting hardware              | Procedure | HCPCS     |
| E2330 | Power wheelchair accessory, head control interface, proximity switch mechanism, nonproportional, including all related electronics, mechanical stop switch, mechanical direction change switch, head array, and fixed mounting hardware            | Procedure | HCPCS     |
| E2331 | Power wheelchair accessory, attendant control, proportional, including all related electronics and fixed mounting hardware                                                                                                                         | Procedure | HCPCS     |
| E2340 | Power wheelchair accessory, nonstandard seat frame width, 20-23 in                                                                                                                                                                                 | Procedure | HCPCS     |
| E2341 | Power wheelchair accessory, nonstandard seat frame width, 24-27 in                                                                                                                                                                                 | Procedure | HCPCS     |
| E2342 | Power wheelchair accessory, nonstandard seat frame depth, 20 or 21 in                                                                                                                                                                              | Procedure | HCPCS     |
| E2343 | Power wheelchair accessory, nonstandard seat frame depth, 22-25 in                                                                                                                                                                                 | Procedure | HCPCS     |
| E2351 | Power wheelchair accessory, electronic interface to operate speech generating device using power wheelchair control interface                                                                                                                      | Procedure | HCPCS     |
| E2358 | Power wheelchair accessory, group 34 nonsealed lead acid battery, each                                                                                                                                                                             | Procedure | HCPCS     |
| E2359 | Power wheelchair accessory, group 34 sealed lead acid battery, each (e.g., gel cell, absorbed glass mat)                                                                                                                                           | Procedure | HCPCS     |
| E2360 | Power wheelchair accessory, 22 NF nonsealed lead acid battery, each                                                                                                                                                                                | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                             | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E2361       | Power wheelchair accessory, 22 NF sealed lead acid battery, each (e.g., gel cell, absorbed glassmat)                                                                                                           | Procedure            | HCPCS            |
| E2362       | Power wheelchair accessory, group 24 nonsealed lead acid battery, each                                                                                                                                         | Procedure            | HCPCS            |
| E2363       | Power wheelchair accessory, group 24 sealed lead acid battery, each (e.g., gel cell, absorbed glassmat)                                                                                                        | Procedure            | HCPCS            |
| E2364       | Power wheelchair accessory, U-1 nonsealed lead acid battery, each                                                                                                                                              | Procedure            | HCPCS            |
| E2365       | Power wheelchair accessory, U-1 sealed lead acid battery, each (e.g., gel cell, absorbed glassmat)                                                                                                             | Procedure            | HCPCS            |
| E2366       | Power wheelchair accessory, battery charger, single mode, for use with only one battery type, sealed or nonsealed, each                                                                                        | Procedure            | HCPCS            |
| E2367       | Power wheelchair accessory, battery charger, dual mode, for use with either battery type, sealed or nonsealed, each                                                                                            | Procedure            | HCPCS            |
| E2368       | Power wheelchair component, drive wheel motor, replacement only                                                                                                                                                | Procedure            | HCPCS            |
| E2369       | Power wheelchair component, drive wheel gear box, replacement only                                                                                                                                             | Procedure            | HCPCS            |
| E2370       | Power wheelchair component, integrated drive wheel motor and gear box combination, replacement only                                                                                                            | Procedure            | HCPCS            |
| E2371       | Power wheelchair accessory, group 27 sealed lead acid battery, (e.g., gel cell, absorbed glassmat), each                                                                                                       | Procedure            | HCPCS            |
| E2372       | Power wheelchair accessory, group 27 nonsealed lead acid battery, each                                                                                                                                         | Procedure            | HCPCS            |
| E2373       | Power wheelchair accessory, hand or chin control interface, compact remote joystick, proportional, including fixed mounting hardware                                                                           | Procedure            | HCPCS            |
| E2374       | Power wheelchair accessory, hand or chin control interface, standard remote joystick (not including controller), proportional, including all related electronics and fixed mounting hardware, replacement only | Procedure            | HCPCS            |
| E2375       | Power wheelchair accessory, nonexpandable controller, including all related electronics and mounting hardware, replacement only                                                                                | Procedure            | HCPCS            |
| E2376       | Power wheelchair accessory, expandable controller, including all related electronics and mounting hardware, replacement only                                                                                   | Procedure            | HCPCS            |
| E2377       | Power wheelchair accessory, expandable controller, including all related electronics and mounting hardware, upgrade provided at initial issue                                                                  | Procedure            | HCPCS            |
| E2378       | Power wheelchair component, actuator, replacement only                                                                                                                                                         | Procedure            | HCPCS            |
| E2381       | Power wheelchair accessory, pneumatic drive wheel tire, any size, replacement only, each                                                                                                                       | Procedure            | HCPCS            |
| E2382       | Power wheelchair accessory, tube for pneumatic drive wheel tire, any size, replacement only, each                                                                                                              | Procedure            | HCPCS            |
| E2383       | Power wheelchair accessory, insert for pneumatic drive wheel tire (removable), any type, any size, replacement only, each                                                                                      | Procedure            | HCPCS            |
| E2384       | Power wheelchair accessory, pneumatic caster tire, any size, replacement only, each                                                                                                                            | Procedure            | HCPCS            |
| E2385       | Power wheelchair accessory, tube for pneumatic caster tire, any size, replacement only, each                                                                                                                   | Procedure            | HCPCS            |
| E2386       | Power wheelchair accessory, foam filled drive wheel tire, any size, replacement only, each                                                                                                                     | Procedure            | HCPCS            |
| E2387       | Power wheelchair accessory, foam filled caster tire, any size, replacement only, each                                                                                                                          | Procedure            | HCPCS            |
| E2388       | Power wheelchair accessory, foam drive wheel tire, any size, replacement only, each                                                                                                                            | Procedure            | HCPCS            |
| E2389       | Power wheelchair accessory, foam caster tire, any size, replacement only, each                                                                                                                                 | Procedure            | HCPCS            |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                               | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E2390       | Power wheelchair accessory, solid (rubber/plastic) drive wheel tire, any size, replacement only, each                                            | Procedure            | HCPCS            |
| E2391       | Power wheelchair accessory, solid (rubber/plastic) caster tire (removable), any size, replacement only, each                                     | Procedure            | HCPCS            |
| E2392       | Power wheelchair accessory, solid (rubber/plastic) caster tire with integrated wheel, any size, replacement only, each                           | Procedure            | HCPCS            |
| E2394       | Power wheelchair accessory, drive wheel excludes tire, any size, replacement only, each                                                          | Procedure            | HCPCS            |
| E2395       | Power wheelchair accessory, caster wheel excludes tire, any size, replacement only, each                                                         | Procedure            | HCPCS            |
| E2396       | Power wheelchair accessory, caster fork, any size, replacement only, each                                                                        | Procedure            | HCPCS            |
| E2397       | Power wheelchair accessory, lithium-based battery, each                                                                                          | Procedure            | HCPCS            |
| E2601       | General use wheelchair seat cushion, width less than 22 in, any depth                                                                            | Procedure            | HCPCS            |
| E2602       | General use wheelchair seat cushion, width 22 in or greater, any depth                                                                           | Procedure            | HCPCS            |
| E2603       | Skin protection wheelchair seat cushion, width less than 22 in, any depth                                                                        | Procedure            | HCPCS            |
| E2604       | Skin protection wheelchair seat cushion, width 22 in or greater, any depth                                                                       | Procedure            | HCPCS            |
| E2605       | Positioning wheelchair seat cushion, width less than 22 in, any depth                                                                            | Procedure            | HCPCS            |
| E2606       | Positioning wheelchair seat cushion, width 22 in or greater, any depth                                                                           | Procedure            | HCPCS            |
| E2607       | Skin protection and positioning wheelchair seat cushion, width less than 22 in, any depth                                                        | Procedure            | HCPCS            |
| E2608       | Skin protection and positioning wheelchair seat cushion, width 22 in or greater, any depth                                                       | Procedure            | HCPCS            |
| E2609       | Custom fabricated wheelchair seat cushion, any size                                                                                              | Procedure            | HCPCS            |
| E2610       | Wheelchair seat cushion, powered                                                                                                                 | Procedure            | HCPCS            |
| E2611       | General use wheelchair back cushion, width less than 22 in, any height, including any type mounting hardware                                     | Procedure            | HCPCS            |
| E2612       | General use wheelchair back cushion, width 22 in or greater, any height, including any type mounting hardware                                    | Procedure            | HCPCS            |
| E2613       | Positioning wheelchair back cushion, posterior, width less than 22 in, any height, including any type mounting hardware                          | Procedure            | HCPCS            |
| E2614       | Positioning wheelchair back cushion, posterior, width 22 in or greater, any height, including any type mounting hardware                         | Procedure            | HCPCS            |
| E2615       | Positioning wheelchair back cushion, posterior-lateral, width less than 22 in, any height, including any type mounting hardware                  | Procedure            | HCPCS            |
| E2616       | Positioning wheelchair back cushion, posterior-lateral, width 22 in or greater, any height, including any type mounting hardware                 | Procedure            | HCPCS            |
| E2617       | Custom fabricated wheelchair back cushion, any size, including any type mounting hardware                                                        | Procedure            | HCPCS            |
| E2619       | Replacement cover for wheelchair seat cushion or back cushion, each                                                                              | Procedure            | HCPCS            |
| E2620       | Positioning wheelchair back cushion, planar back with lateral supports, width less than 22 in, any height, including any type mounting hardware  | Procedure            | HCPCS            |
| E2621       | Positioning wheelchair back cushion, planar back with lateral supports, width 22 in or greater, any height, including any type mounting hardware | Procedure            | HCPCS            |
| J0174       | Injection, lecanemab-irmb, 1 mg                                                                                                                  | Procedure            | HCPCS            |
| J0175       | Injection, donanemab-azbt, 2 mg                                                                                                                  | Procedure            | HCPCS            |
| J1160       | Injection, digoxin, up to 0.5 mg                                                                                                                 | Procedure            | HCPCS            |
| J1940       | Injection, furosemide, up to 20 mg                                                                                                               | Procedure            | HCPCS            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                    | Code      |           |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                | Category  | Code Type |
| J3265 | Injection, torsemide, 10 mg/ml                                                                                                                                 | Procedure | HCPCS     |
| K0001 | Standard wheelchair                                                                                                                                            | Procedure | HCPCS     |
| K0002 | Standard hemi (low seat) wheelchair                                                                                                                            | Procedure | HCPCS     |
| K0003 | Lightweight wheelchair                                                                                                                                         | Procedure | HCPCS     |
| K0004 | High strength, lightweight wheelchair                                                                                                                          | Procedure | HCPCS     |
| K0005 | Ultralightweight wheelchair                                                                                                                                    | Procedure | HCPCS     |
| K0006 | Heavy-duty wheelchair                                                                                                                                          | Procedure | HCPCS     |
| K0007 | Extra heavy-duty wheelchair                                                                                                                                    | Procedure | HCPCS     |
| K0008 | Custom manual wheelchair/base                                                                                                                                  | Procedure | HCPCS     |
| K0009 | Other manual wheelchair/base                                                                                                                                   | Procedure | HCPCS     |
| K0010 | Standard-weight frame motorized/power wheelchair                                                                                                               | Procedure | HCPCS     |
| K0011 | Standard-weight frame motorized/power wheelchair with programmable control parameters for speed adjustment, tremor dampening, acceleration control and braking | Procedure | HCPCS     |
| K0012 | Lightweight portable motorized/power wheelchair                                                                                                                | Procedure | HCPCS     |
| K0013 | Custom motorized/power wheelchair base                                                                                                                         | Procedure | HCPCS     |
| K0014 | Other motorized/power wheelchair base                                                                                                                          | Procedure | HCPCS     |
| K0015 | Detachable, nonadjustable height armrest, each                                                                                                                 | Procedure | HCPCS     |
| K0017 | Detachable, adjustable height armrest, base, replacement only, each                                                                                            | Procedure | HCPCS     |
| K0018 | Detachable, adjustable height armrest, upper portion, replacement only, each                                                                                   | Procedure | HCPCS     |
| K0019 | Arm pad, replacement only, each                                                                                                                                | Procedure | HCPCS     |
| K0020 | Fixed, adjustable height armrest, pair                                                                                                                         | Procedure | HCPCS     |
| K0037 | High mount flip-up footrest, each                                                                                                                              | Procedure | HCPCS     |
| K0038 | Leg strap, each                                                                                                                                                | Procedure | HCPCS     |
| K0039 | Leg strap, H style, each                                                                                                                                       | Procedure | HCPCS     |
| K0040 | Adjustable angle footplate, each                                                                                                                               | Procedure | HCPCS     |
| K0041 | Large size footplate, each                                                                                                                                     | Procedure | HCPCS     |
| K0042 | Standard size footplate, replacement only, each                                                                                                                | Procedure | HCPCS     |
| K0043 | Footrest, lower extension tube, replacement only, each                                                                                                         | Procedure | HCPCS     |
| K0044 | Footrest, upper hanger bracket, replacement only, each                                                                                                         | Procedure | HCPCS     |
| K0045 | Footrest, complete assembly, replacement only, each                                                                                                            | Procedure | HCPCS     |
| K0046 | Elevating legrest, lower extension tube, replacement only, each                                                                                                | Procedure | HCPCS     |
| K0047 | Elevating legrest, upper hanger bracket, replacement only, each                                                                                                | Procedure | HCPCS     |
| K0050 | Ratchet assembly, replacement only                                                                                                                             | Procedure | HCPCS     |
| K0051 | Cam release assembly, footrest or legrest, replacement only, each                                                                                              | Procedure | HCPCS     |
| K0052 | Swingaway, detachable footrests, replacement only, each                                                                                                        | Procedure | HCPCS     |
| K0053 | Elevating footrests, articulating (telescoping), each                                                                                                          | Procedure | HCPCS     |
| K0056 | Seat height less than 17 in or equal to or greater than 21 in for a high-strength, lightweight, or ultralightweight wheelchair                                 | Procedure | HCPCS     |
| K0065 | Spoke protectors, each                                                                                                                                         | Procedure | HCPCS     |
| K0069 | Rear wheel assembly, complete, with solid tire, spokes or molded, replacement only, each                                                                       | Procedure | HCPCS     |
| K0070 | Rear wheel assembly, complete, with pneumatic tire, spokes or molded, replacement only, each                                                                   | Procedure | HCPCS     |
| K0071 | Front caster assembly, complete, with pneumatic tire, replacement only, each                                                                                   | Procedure | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                         | Description                                                                                                                                                                                                               | Code Category | Code Type |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| K0072                        | Front caster assembly, complete, with semipneumatic tire, replacement only, each                                                                                                                                          | Procedure     | HCPCS     |
| K0073                        | Caster pin lock, each                                                                                                                                                                                                     | Procedure     | HCPCS     |
| K0077                        | Front caster assembly, complete, with solid tire, replacement only, each                                                                                                                                                  | Procedure     | HCPCS     |
| K0098                        | Drive belt for power wheelchair, replacement only                                                                                                                                                                         | Procedure     | HCPCS     |
| K0105                        | IV hanger, each                                                                                                                                                                                                           | Procedure     | HCPCS     |
| K0108                        | Wheelchair component or accessory, not otherwise specified                                                                                                                                                                | Procedure     | HCPCS     |
| K0195                        | Elevating legrests, pair (for use with capped rental wheelchair base)                                                                                                                                                     | Procedure     | HCPCS     |
| K0455                        | Infusion pump used for uninterrupted parenteral administration of medication, (e.g., epoprostenol or treprostinol)                                                                                                        | Procedure     | HCPCS     |
| K0462                        | Temporary replacement for patient-owned equipment being repaired, any type                                                                                                                                                | Procedure     | HCPCS     |
| K0669                        | Wheelchair accessory, wheelchair seat or back cushion, does not meet specific code criteria or no written coding verification from DME PDAC                                                                               | Procedure     | HCPCS     |
| S0171                        | Injection, bumetanide, 0.5 mg                                                                                                                                                                                             | Procedure     | HCPCS     |
| <b>Any HbA1c Test</b>        |                                                                                                                                                                                                                           |               |           |
| 81506                        | Endocrinology (type 2 diabetes), biochemical assays of seven analytes (glucose, HbA1c, insulin, hs-CRP, adiponectin, ferritin, interleukin 2-receptor alpha), utilizing serum or plasma, algorithm reporting a risk score | Procedure     | CPT-4     |
| 83036                        | Hemoglobin; glycosylated (A1C)                                                                                                                                                                                            | Procedure     | CPT-4     |
| 83037                        | Hemoglobin; glycosylated (A1C) by device cleared by FDA for home use                                                                                                                                                      | Procedure     | CPT-4     |
| D0411                        | HbA1c in-office point of service testing                                                                                                                                                                                  | Procedure     | HCPCS     |
| <b>Hepatitis C Infection</b> |                                                                                                                                                                                                                           |               |           |
| 070.41                       | Acute hepatitis C with hepatic coma                                                                                                                                                                                       | Diagnosis     | ICD-9-CM  |
| 070.44                       | Chronic hepatitis C with hepatic coma                                                                                                                                                                                     | Diagnosis     | ICD-9-CM  |
| 070.51                       | Acute hepatitis C without mention of hepatic coma                                                                                                                                                                         | Diagnosis     | ICD-9-CM  |
| 070.54                       | Chronic hepatitis C without mention of hepatic coma                                                                                                                                                                       | Diagnosis     | ICD-9-CM  |
| 070.7                        | Unspecified viral hepatitis C                                                                                                                                                                                             | Diagnosis     | ICD-9-CM  |
| 070.70                       | Unspecified viral hepatitis C without hepatic coma                                                                                                                                                                        | Diagnosis     | ICD-9-CM  |
| 070.71                       | Unspecified viral hepatitis C with hepatic coma                                                                                                                                                                           | Diagnosis     | ICD-9-CM  |
| B17.10                       | Acute hepatitis C without hepatic coma                                                                                                                                                                                    | Diagnosis     | ICD-10-CM |
| B17.11                       | Acute hepatitis C with hepatic coma                                                                                                                                                                                       | Diagnosis     | ICD-10-CM |
| B18.2                        | Chronic viral hepatitis C                                                                                                                                                                                                 | Diagnosis     | ICD-10-CM |
| B19.20                       | Unspecified viral hepatitis C without hepatic coma                                                                                                                                                                        | Diagnosis     | ICD-10-CM |
| B19.21                       | Unspecified viral hepatitis C with hepatic coma                                                                                                                                                                           | Diagnosis     | ICD-10-CM |
| V02.62                       | Hepatitis C carrier                                                                                                                                                                                                       | Diagnosis     | ICD-9-CM  |
| Z22.52                       | Carrier of viral hepatitis C                                                                                                                                                                                              | Diagnosis     | ICD-10-CM |
| <b>Hyperglycemia</b>         |                                                                                                                                                                                                                           |               |           |
| 250.02                       | Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled                                                                                                                              | Diagnosis     | ICD-9-CM  |
| 250.03                       | Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled                                                                                                                                   | Diagnosis     | ICD-9-CM  |
| 250.1                        | Diabetes with ketoacidosis                                                                                                                                                                                                | Diagnosis     | ICD-9-CM  |
| 250.10                       | Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled                                                                                                                                       | Diagnosis     | ICD-9-CM  |
| 250.11                       | Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled                                                                                                                                            | Diagnosis     | ICD-9-CM  |
| 250.12                       | Diabetes with ketoacidosis, type II or unspecified type, uncontrolled                                                                                                                                                     | Diagnosis     | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                | Description                                                                                                       | Code      |           |
|---------------------|-------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|                     |                                                                                                                   | Category  | Code Type |
| 250.13              | Diabetes with ketoacidosis, type I [juvenile type], uncontrolled                                                  | Diagnosis | ICD-9-CM  |
| 250.2               | Diabetes with hyperosmolarity                                                                                     | Diagnosis | ICD-9-CM  |
| 250.20              | Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled                            | Diagnosis | ICD-9-CM  |
| 250.21              | Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled                                 | Diagnosis | ICD-9-CM  |
| 250.22              | Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled                                          | Diagnosis | ICD-9-CM  |
| 250.23              | Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled                                               | Diagnosis | ICD-9-CM  |
| 250.3               | Diabetes with other coma                                                                                          | Diagnosis | ICD-9-CM  |
| 250.30              | Diabetes with other coma, type II or unspecified type, not stated as uncontrolled                                 | Diagnosis | ICD-9-CM  |
| 250.31              | Diabetes with other coma, type I [juvenile type], not stated as uncontrolled                                      | Diagnosis | ICD-9-CM  |
| 250.32              | Diabetes with other coma, type II or unspecified type, uncontrolled                                               | Diagnosis | ICD-9-CM  |
| 250.33              | Diabetes with other coma, type I [juvenile type], uncontrolled                                                    | Diagnosis | ICD-9-CM  |
| E08.65              | Diabetes mellitus due to underlying condition with hyperglycemia                                                  | Diagnosis | ICD-10-CM |
| E09.65              | Drug or chemical induced diabetes mellitus with hyperglycemia                                                     | Diagnosis | ICD-10-CM |
| E10.10              | Type 1 diabetes mellitus with ketoacidosis without coma                                                           | Diagnosis | ICD-10-CM |
| E10.11              | Type 1 diabetes mellitus with ketoacidosis with coma                                                              | Diagnosis | ICD-10-CM |
| E10.641             | Type 1 diabetes mellitus with hypoglycemia with coma                                                              | Diagnosis | ICD-10-CM |
| E10.65              | Type 1 diabetes mellitus with hyperglycemia                                                                       | Diagnosis | ICD-10-CM |
| E10.69              | Type 1 diabetes mellitus with other specified complication                                                        | Diagnosis | ICD-10-CM |
| E11.00              | Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)          | Diagnosis | ICD-10-CM |
| E11.01              | Type 2 diabetes mellitus with hyperosmolarity with coma                                                           | Diagnosis | ICD-10-CM |
| E11.10              | Type 2 diabetes mellitus with ketoacidosis without coma                                                           | Diagnosis | ICD-10-CM |
| E11.11              | Type 2 diabetes mellitus with ketoacidosis with coma                                                              | Diagnosis | ICD-10-CM |
| E11.65              | Type 2 diabetes mellitus with hyperglycemia                                                                       | Diagnosis | ICD-10-CM |
| E13.00              | Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC) | Diagnosis | ICD-10-CM |
| E13.01              | Other specified diabetes mellitus with hyperosmolarity with coma                                                  | Diagnosis | ICD-10-CM |
| E13.10              | Other specified diabetes mellitus with ketoacidosis without coma                                                  | Diagnosis | ICD-10-CM |
| E13.11              | Other specified diabetes mellitus with ketoacidosis with coma                                                     | Diagnosis | ICD-10-CM |
| E13.641             | Other specified diabetes mellitus with hypoglycemia with coma                                                     | Diagnosis | ICD-10-CM |
| E13.65              | Other specified diabetes mellitus with hyperglycemia                                                              | Diagnosis | ICD-10-CM |
| R73.9               | Hyperglycemia, unspecified                                                                                        | Diagnosis | ICD-10-CM |
| <b>Hypertension</b> |                                                                                                                   |           |           |
| 362.11              | Hypertensive retinopathy                                                                                          | Diagnosis | ICD-9-CM  |
| 401.0               | Essential hypertension, malignant                                                                                 | Diagnosis | ICD-9-CM  |
| 401.1               | Essential hypertension, benign                                                                                    | Diagnosis | ICD-9-CM  |
| 401.9               | Unspecified essential hypertension                                                                                | Diagnosis | ICD-9-CM  |
| 402.00              | Malignant hypertensive heart disease without heart failure                                                        | Diagnosis | ICD-9-CM  |
| 402.01              | Malignant hypertensive heart disease with heart failure                                                           | Diagnosis | ICD-9-CM  |
| 402.10              | Benign hypertensive heart disease without heart failure                                                           | Diagnosis | ICD-9-CM  |
| 402.11              | Benign hypertensive heart disease with heart failure                                                              | Diagnosis | ICD-9-CM  |
| 402.90              | Unspecified hypertensive heart disease without heart failure                                                      | Diagnosis | ICD-9-CM  |
| 402.91              | Hypertensive heart disease, unspecified, with heart failure                                                       | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                                                                                | Code      | Code Type |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                                            | Category  |           |
| 403.00 | Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified                                       | Diagnosis | ICD-9-CM  |
| 403.01 | Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease                                             | Diagnosis | ICD-9-CM  |
| 403.10 | Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified                                          | Diagnosis | ICD-9-CM  |
| 403.11 | Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease                                                | Diagnosis | ICD-9-CM  |
| 403.90 | Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage I through stage IV, or unspecified                                     | Diagnosis | ICD-9-CM  |
| 403.91 | Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease                                           | Diagnosis | ICD-9-CM  |
| 404.00 | Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified   | Diagnosis | ICD-9-CM  |
| 404.01 | Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified      | Diagnosis | ICD-9-CM  |
| 404.02 | Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease         | Diagnosis | ICD-9-CM  |
| 404.03 | Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease            | Diagnosis | ICD-9-CM  |
| 404.10 | Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified      | Diagnosis | ICD-9-CM  |
| 404.11 | Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified         | Diagnosis | ICD-9-CM  |
| 404.12 | Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease            | Diagnosis | ICD-9-CM  |
| 404.13 | Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease                    | Diagnosis | ICD-9-CM  |
| 404.90 | Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified | Diagnosis | ICD-9-CM  |
| 404.91 | Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified    | Diagnosis | ICD-9-CM  |
| 404.92 | Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease       | Diagnosis | ICD-9-CM  |
| 404.93 | Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease               | Diagnosis | ICD-9-CM  |
| 405.01 | Secondary renovascular hypertension, malignant                                                                                                             | Diagnosis | ICD-9-CM  |
| 405.09 | Other secondary hypertension, malignant                                                                                                                    | Diagnosis | ICD-9-CM  |
| 405.11 | Secondary renovascular hypertension, benign                                                                                                                | Diagnosis | ICD-9-CM  |
| 405.19 | Other secondary hypertension, benign                                                                                                                       | Diagnosis | ICD-9-CM  |
| 405.91 | Secondary renovascular hypertension, unspecified                                                                                                           | Diagnosis | ICD-9-CM  |
| 405.99 | Other secondary hypertension, unspecified                                                                                                                  | Diagnosis | ICD-9-CM  |
| 437.2  | Hypertensive encephalopathy                                                                                                                                | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                | Description                                                                                                                                                     | Code      |           |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|                     |                                                                                                                                                                 | Category  | Code Type |
| H35.031             | Hypertensive retinopathy, right eye                                                                                                                             | Diagnosis | ICD-10-CM |
| H35.032             | Hypertensive retinopathy, left eye                                                                                                                              | Diagnosis | ICD-10-CM |
| H35.033             | Hypertensive retinopathy, bilateral                                                                                                                             | Diagnosis | ICD-10-CM |
| H35.039             | Hypertensive retinopathy, unspecified eye                                                                                                                       | Diagnosis | ICD-10-CM |
| I10                 | Essential (primary) hypertension                                                                                                                                | Diagnosis | ICD-10-CM |
| I11.0               | Hypertensive heart disease with heart failure                                                                                                                   | Diagnosis | ICD-10-CM |
| I11.9               | Hypertensive heart disease without heart failure                                                                                                                | Diagnosis | ICD-10-CM |
| I12.0               | Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease                                                              | Diagnosis | ICD-10-CM |
| I12.9               | Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease                                  | Diagnosis | ICD-10-CM |
| I13.0               | Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease      | Diagnosis | ICD-10-CM |
| I13.10              | Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease | Diagnosis | ICD-10-CM |
| I13.11              | Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease                            | Diagnosis | ICD-10-CM |
| I13.2               | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease                            | Diagnosis | ICD-10-CM |
| I15.0               | Renovascular hypertension                                                                                                                                       | Diagnosis | ICD-10-CM |
| I15.1               | Hypertension secondary to other renal disorders                                                                                                                 | Diagnosis | ICD-10-CM |
| I15.2               | Hypertension secondary to endocrine disorders                                                                                                                   | Diagnosis | ICD-10-CM |
| I15.8               | Other secondary hypertension                                                                                                                                    | Diagnosis | ICD-10-CM |
| I15.9               | Secondary hypertension, unspecified                                                                                                                             | Diagnosis | ICD-10-CM |
| I67.4               | Hypertensive encephalopathy                                                                                                                                     | Diagnosis | ICD-10-CM |
| N26.2               | Page kidney                                                                                                                                                     | Diagnosis | ICD-10-CM |
| <b>Hypoglycemia</b> |                                                                                                                                                                 |           |           |
| 251.0               | Hypoglycemic coma                                                                                                                                               | Diagnosis | ICD-9-CM  |
| 251.1               | Other specified hypoglycemia                                                                                                                                    | Diagnosis | ICD-9-CM  |
| 251.2               | Hypoglycemia, unspecified                                                                                                                                       | Diagnosis | ICD-9-CM  |
| E08.64              | Diabetes mellitus due to underlying condition with hypoglycemia                                                                                                 | Diagnosis | ICD-10-CM |
| E08.641             | Diabetes mellitus due to underlying condition with hypoglycemia with coma                                                                                       | Diagnosis | ICD-10-CM |
| E08.649             | Diabetes mellitus due to underlying condition with hypoglycemia without coma                                                                                    | Diagnosis | ICD-10-CM |
| E09.64              | Drug or chemical induced diabetes mellitus with hypoglycemia                                                                                                    | Diagnosis | ICD-10-CM |
| E09.641             | Drug or chemical induced diabetes mellitus with hypoglycemia with coma                                                                                          | Diagnosis | ICD-10-CM |
| E09.649             | Drug or chemical induced diabetes mellitus with hypoglycemia without coma                                                                                       | Diagnosis | ICD-10-CM |
| E10.64              | Type 1 diabetes mellitus with hypoglycemia                                                                                                                      | Diagnosis | ICD-10-CM |
| E10.641             | Type 1 diabetes mellitus with hypoglycemia with coma                                                                                                            | Diagnosis | ICD-10-CM |
| E10.649             | Type 1 diabetes mellitus with hypoglycemia without coma                                                                                                         | Diagnosis | ICD-10-CM |
| E11.64              | Type 2 diabetes mellitus with hypoglycemia                                                                                                                      | Diagnosis | ICD-10-CM |
| E11.641             | Type 2 diabetes mellitus with hypoglycemia with coma                                                                                                            | Diagnosis | ICD-10-CM |
| E11.649             | Type 2 diabetes mellitus with hypoglycemia without coma                                                                                                         | Diagnosis | ICD-10-CM |
| E13.64              | Other specified diabetes mellitus with hypoglycemia                                                                                                             | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

|                          |                                                                                                                                                                   | <b>Code</b>     |                  |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| <b>Code</b>              | <b>Description</b>                                                                                                                                                | <b>Category</b> | <b>Code Type</b> |
| E13.641                  | Other specified diabetes mellitus with hypoglycemia with coma                                                                                                     | Diagnosis       | ICD-10-CM        |
| E13.649                  | Other specified diabetes mellitus with hypoglycemia without coma                                                                                                  | Diagnosis       | ICD-10-CM        |
| E16.0                    | Drug-induced hypoglycemia without coma                                                                                                                            | Diagnosis       | ICD-10-CM        |
| E16.1                    | Other hypoglycemia                                                                                                                                                | Diagnosis       | ICD-10-CM        |
| E16.2                    | Hypoglycemia, unspecified                                                                                                                                         | Diagnosis       | ICD-10-CM        |
| E16.A                    | Hypoglycemia level                                                                                                                                                | Diagnosis       | ICD-10-CM        |
| E16.A1                   | Hypoglycemia level 1                                                                                                                                              | Diagnosis       | ICD-10-CM        |
| E16.A2                   | Hypoglycemia level 2                                                                                                                                              | Diagnosis       | ICD-10-CM        |
| E16.A3                   | Hypoglycemia level 3                                                                                                                                              | Diagnosis       | ICD-10-CM        |
| <b>Influenza Vaccine</b> |                                                                                                                                                                   |                 |                  |
| 3E01340                  | Introduction of Influenza Vaccine into Subcutaneous Tissue, Percutaneous Approach                                                                                 | Procedure       | ICD-10-PCS       |
| 3E02340                  | Introduction of Influenza Vaccine into Muscle, Percutaneous Approach                                                                                              | Procedure       | ICD-10-PCS       |
| 90470                    | H1N1 immunization administration (intramuscular, intranasal), including counseling when performed                                                                 | Procedure       | CPT-4            |
| 90630                    | Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, for intradermal use                                                                 | Procedure       | CPT-4            |
| 90653                    | Influenza vaccine, inactivated (IIV), subunit, adjuvanted, for intramuscular use                                                                                  | Procedure       | CPT-4            |
| 90654                    | Influenza virus vaccine, trivalent (IIV3), split virus, preservative-free, for intradermal use                                                                    | Procedure       | CPT-4            |
| 90655                    | Influenza virus vaccine, trivalent (IIV3), split virus, preservative free, 0.25 mL dosage, for intramuscular use                                                  | Procedure       | CPT-4            |
| 90656                    | Influenza virus vaccine, trivalent (IIV3), split virus, preservative free, 0.5 mL dosage, for intramuscular use                                                   | Procedure       | CPT-4            |
| 90657                    | Influenza virus vaccine, trivalent (IIV3), split virus, 0.25 mL dosage, for intramuscular use                                                                     | Procedure       | CPT-4            |
| 90658                    | Influenza virus vaccine, trivalent (IIV3), split virus, 0.5 mL dosage, for intramuscular use                                                                      | Procedure       | CPT-4            |
| 90659                    | Influenza virus vaccine, whole virus, for intramuscular or jet injection use                                                                                      | Procedure       | CPT-4            |
| 90660                    | Influenza virus vaccine, trivalent, live (LAIV3), for intranasal use                                                                                              | Procedure       | CPT-4            |
| 90661                    | Influenza virus vaccine, trivalent (ccIIV3), derived from cell cultures, subunit, preservative and antibiotic free, 0.5 mL dosage, for intramuscular use          | Procedure       | CPT-4            |
| 90662                    | Influenza virus vaccine (IIV), split virus, preservative free, enhanced immunogenicity via increased antigen content, for intramuscular use                       | Procedure       | CPT-4            |
| 90663                    | Influenza virus vaccine, pandemic formulation, H1N1                                                                                                               | Procedure       | CPT-4            |
| 90664                    | Influenza virus vaccine, live (LAIV), pandemic formulation, for intranasal use                                                                                    | Procedure       | CPT-4            |
| 90666                    | Influenza virus vaccine (IIV), pandemic formulation, split virus, preservative free, for intramuscular use                                                        | Procedure       | CPT-4            |
| 90667                    | Influenza virus vaccine (IIV), pandemic formulation, split virus, adjuvanted, for intramuscular use                                                               | Procedure       | CPT-4            |
| 90668                    | Influenza virus vaccine (IIV), pandemic formulation, split virus, for intramuscular use                                                                           | Procedure       | CPT-4            |
| 90672                    | Influenza virus vaccine, quadrivalent, live (LAIV4), for intranasal use                                                                                           | Procedure       | CPT-4            |
| 90673                    | Influenza virus vaccine, trivalent (RIV3), derived from recombinant DNA, hemagglutinin (HA) protein only, preservative and antibiotic free, for intramuscular use | Procedure       | CPT-4            |
| 90674                    | Influenza virus vaccine, quadrivalent (ccIIV4), derived from cell cultures, subunit, preservative and antibiotic free, 0.5 mL dosage, for intramuscular use       | Procedure       | CPT-4            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code               | Description                                                                                                                                                          | Code Category | Code Type |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 90682              | Influenza virus vaccine, quadrivalent (RIV4), derived from recombinant DNA, hemagglutinin (HA) protein only, preservative and antibiotic free, for intramuscular use | Procedure     | CPT-4     |
| 90685              | Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, 0.25 mL, for intramuscular use                                                         | Procedure     | CPT-4     |
| 90686              | Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, 0.5 mL dosage, for intramuscular use                                                   | Procedure     | CPT-4     |
| 90687              | Influenza virus vaccine, quadrivalent (IIV4), split virus, 0.25 mL dosage, for intramuscular use                                                                     | Procedure     | CPT-4     |
| 90688              | Influenza virus vaccine, quadrivalent (IIV4), split virus, 0.5 mL dosage, for intramuscular use                                                                      | Procedure     | CPT-4     |
| 90689              | Influenza virus vaccine quadrivalent (IIV4), inactivated, adjuvanted, preservative free, 0.25 mL dosage, for intramuscular use                                       | Procedure     | CPT-4     |
| 90694              | Influenza virus vaccine, quadrivalent (aIIV4), inactivated, adjuvanted, preservative free, 0.5 mL dosage, for intramuscular use                                      | Procedure     | CPT-4     |
| 90724              | IMMUNIZ ACTIVE; INFLUENZA VIRUS VACCINE                                                                                                                              | Procedure     | CPT-4     |
| 90756              | Influenza virus vaccine, quadrivalent (ccIIV4), derived from cell cultures, subunit, antibiotic free, 0.5mL dosage, for intramuscular use                            | Procedure     | CPT-4     |
| 99.52              | Prophylactic vaccination against influenza                                                                                                                           | Procedure     | ICD-9-CM  |
| G0008              | Administration of influenza virus vaccine                                                                                                                            | Procedure     | HCPCS     |
| G2163              | Patient received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period                         | Procedure     | HCPCS     |
| G9141              | Influenza A (H1N1) immunization administration (includes the physician counseling the patient/family)                                                                | Procedure     | HCPCS     |
| G9142              | Influenza A (H1N1) vaccine, any route of administration                                                                                                              | Procedure     | HCPCS     |
| Q0034              | Administration of influenza vaccine to Medicare beneficiaries by participating demonstration sites                                                                   | Procedure     | HCPCS     |
| Q2033              | Influenza vaccine, recombinant hemagglutinin antigens, for intramuscular use (Flublok)                                                                               | Procedure     | HCPCS     |
| Q2034              | Influenza virus vaccine, split virus, for intramuscular use (Agrimflu)                                                                                               | Procedure     | HCPCS     |
| Q2035              | Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (AFLURIA)                                     | Procedure     | HCPCS     |
| Q2036              | Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (FLULAVAL)                                    | Procedure     | HCPCS     |
| Q2037              | Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (FLUVIRIN)                                    | Procedure     | HCPCS     |
| Q2038              | Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (Fluzone)                                     | Procedure     | HCPCS     |
| Q2039              | Influenza virus vaccine, not otherwise specified                                                                                                                     | Procedure     | HCPCS     |
| <b>Any Insulin</b> |                                                                                                                                                                      |               |           |
| J1811              | Insulin (Fiasp) for administration through DME (i.e., insulin pump) per 50 units                                                                                     | Procedure     | HCPCS     |
| J1812              | Insulin (Fiasp), per 5 units                                                                                                                                         | Procedure     | HCPCS     |
| J1813              | Insulin (Lyumjev) for administration through DME (i.e., insulin pump) per 50 units                                                                                   | Procedure     | HCPCS     |
| J1814              | Insulin (Lyumjev), per 5 units                                                                                                                                       | Procedure     | HCPCS     |
| J1815              | Injection, insulin, per 5 units                                                                                                                                      | Procedure     | HCPCS     |
| J1817              | Insulin for insulin pump use                                                                                                                                         | Procedure     | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

|                                                               |                                                                                    | <b>Code</b>     |                  |
|---------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|------------------|
| <b>Code</b>                                                   | <b>Description</b>                                                                 | <b>Category</b> | <b>Code Type</b> |
| S5550                                                         | Insulin, rapid onset, 5 units                                                      | Procedure       | HCPCS            |
| S5551                                                         | Insulin, most rapid onset (Lispro or Aspart); 5 units                              | Procedure       | HCPCS            |
| S5552                                                         | Insulin, intermediate acting (NPH or LENTE); 5 units                               | Procedure       | HCPCS            |
| S5553                                                         | Insulin, long acting; 5 units                                                      | Procedure       | HCPCS            |
| S5560                                                         | Insulin delivery device, reusable pen; 1.5 ml size                                 | Procedure       | HCPCS            |
| S5561                                                         | Insulin delivery device, reusable pen; 3 ml size                                   | Procedure       | HCPCS            |
| S5565                                                         | Insulin cartridge for use in insulin delivery device other than pump; 150 units    | Procedure       | HCPCS            |
| S5566                                                         | Insulin cartridge for use in insulin delivery device other than pump; 300 units    | Procedure       | HCPCS            |
| S5570                                                         | Insulin delivery device, disposable pen (including insulin); 1.5 ml size           | Procedure       | HCPCS            |
| S5571                                                         | Insulin delivery device, disposable pen (including insulin); 3 ml size             | Procedure       | HCPCS            |
| <b>Long and Intermediate-Acting Insulin</b>                   |                                                                                    |                 |                  |
| S5552                                                         | Insulin, intermediate acting (NPH or LENTE); 5 units                               | Procedure       | HCPCS            |
| S5553                                                         | Insulin, long acting; 5 units                                                      | Procedure       | HCPCS            |
| <b>Short/Rapid-Acting Insulin</b>                             |                                                                                    |                 |                  |
| J1811                                                         | Insulin (Fiasp) for administration through DME (i.e., insulin pump) per 50 units   | Procedure       | HCPCS            |
| J1812                                                         | Insulin (Fiasp), per 5 units                                                       | Procedure       | HCPCS            |
| J1813                                                         | Insulin (Lyumjev) for administration through DME (i.e., insulin pump) per 50 units | Procedure       | HCPCS            |
| J1814                                                         | Insulin (Lyumjev), per 5 units                                                     | Procedure       | HCPCS            |
| S5550                                                         | Insulin, rapid onset, 5 units                                                      | Procedure       | HCPCS            |
| S5551                                                         | Insulin, most rapid onset (Lispro or Aspart); 5 units                              | Procedure       | HCPCS            |
| <b>Non-Specific Insulins</b>                                  |                                                                                    |                 |                  |
| J1815                                                         | Injection, insulin, per 5 units                                                    | Procedure       | HCPCS            |
| J1817                                                         | Insulin for insulin pump use                                                       | Procedure       | HCPCS            |
| S5560                                                         | Insulin delivery device, reusable pen; 1.5 ml size                                 | Procedure       | HCPCS            |
| S5561                                                         | Insulin delivery device, reusable pen; 3 ml size                                   | Procedure       | HCPCS            |
| S5565                                                         | Insulin cartridge for use in insulin delivery device other than pump; 150 units    | Procedure       | HCPCS            |
| S5566                                                         | Insulin cartridge for use in insulin delivery device other than pump; 300 units    | Procedure       | HCPCS            |
| S5570                                                         | Insulin delivery device, disposable pen (including insulin); 1.5 ml size           | Procedure       | HCPCS            |
| S5571                                                         | Insulin delivery device, disposable pen (including insulin); 3 ml size             | Procedure       | HCPCS            |
| <b>History of Kidney Stones</b>                               |                                                                                    |                 |                  |
| 592.0                                                         | Calculus of kidney                                                                 | Diagnosis       | ICD-9-CM         |
| N13.2                                                         | Hydronephrosis with renal and ureteral calculous obstruction                       | Diagnosis       | ICD-10-CM        |
| N20                                                           | Calculus of kidney and ureter                                                      | Diagnosis       | ICD-10-CM        |
| N20.0                                                         | Calculus of kidney                                                                 | Diagnosis       | ICD-10-CM        |
| N20.2                                                         | Calculus of kidney with calculus of ureter                                         | Diagnosis       | ICD-10-CM        |
| N20.9                                                         | Urinary calculus, unspecified                                                      | Diagnosis       | ICD-10-CM        |
| N22                                                           | Calculus of urinary tract in diseases classified elsewhere                         | Diagnosis       | ICD-10-CM        |
| <b>Malignancy/Cancer (Excluding Non-Melanoma Skin Cancer)</b> |                                                                                    |                 |                  |
| 140                                                           | Malignant neoplasm of lip                                                          | Diagnosis       | ICD-9-CM         |
| 140.0                                                         | Malignant neoplasm of upper lip, vermilion border                                  | Diagnosis       | ICD-9-CM         |
| 140.1                                                         | Malignant neoplasm of lower lip, vermilion border                                  | Diagnosis       | ICD-9-CM         |
| 140.3                                                         | Malignant neoplasm of upper lip, inner aspect                                      | Diagnosis       | ICD-9-CM         |
| 140.4                                                         | Malignant neoplasm of lower lip, inner aspect                                      | Diagnosis       | ICD-9-CM         |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                   | Code      |           |
|-------|-------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                               | Category  | Code Type |
| 140.5 | Malignant neoplasm of lip, inner aspect, unspecified as to upper or lower     | Diagnosis | ICD-9-CM  |
| 140.6 | Malignant neoplasm of commissure of lip                                       | Diagnosis | ICD-9-CM  |
| 140.8 | Malignant neoplasm of other sites of lip                                      | Diagnosis | ICD-9-CM  |
| 140.9 | Malignant neoplasm of lip, vermilion border, unspecified as to upper or lower | Diagnosis | ICD-9-CM  |
| 141   | Malignant neoplasm of tongue                                                  | Diagnosis | ICD-9-CM  |
| 141.0 | Malignant neoplasm of base of tongue                                          | Diagnosis | ICD-9-CM  |
| 141.1 | Malignant neoplasm of dorsal surface of tongue                                | Diagnosis | ICD-9-CM  |
| 141.2 | Malignant neoplasm of tip and lateral border of tongue                        | Diagnosis | ICD-9-CM  |
| 141.3 | Malignant neoplasm of ventral surface of tongue                               | Diagnosis | ICD-9-CM  |
| 141.4 | Malignant neoplasm of anterior two-thirds of tongue, part unspecified         | Diagnosis | ICD-9-CM  |
| 141.5 | Malignant neoplasm of junctional zone of tongue                               | Diagnosis | ICD-9-CM  |
| 141.6 | Malignant neoplasm of lingual tonsil                                          | Diagnosis | ICD-9-CM  |
| 141.8 | Malignant neoplasm of other sites of tongue                                   | Diagnosis | ICD-9-CM  |
| 141.9 | Malignant neoplasm of tongue, unspecified site                                | Diagnosis | ICD-9-CM  |
| 142   | Malignant neoplasm of major salivary glands                                   | Diagnosis | ICD-9-CM  |
| 142.0 | Malignant neoplasm of parotid gland                                           | Diagnosis | ICD-9-CM  |
| 142.1 | Malignant neoplasm of submandibular gland                                     | Diagnosis | ICD-9-CM  |
| 142.2 | Malignant neoplasm of sublingual gland                                        | Diagnosis | ICD-9-CM  |
| 142.8 | Malignant neoplasm of other major salivary glands                             | Diagnosis | ICD-9-CM  |
| 142.9 | Malignant neoplasm of salivary gland, unspecified                             | Diagnosis | ICD-9-CM  |
| 143   | Malignant neoplasm of gum                                                     | Diagnosis | ICD-9-CM  |
| 143.0 | Malignant neoplasm of upper gum                                               | Diagnosis | ICD-9-CM  |
| 143.1 | Malignant neoplasm of lower gum                                               | Diagnosis | ICD-9-CM  |
| 143.8 | Malignant neoplasm of other sites of gum                                      | Diagnosis | ICD-9-CM  |
| 143.9 | Malignant neoplasm of gum, unspecified site                                   | Diagnosis | ICD-9-CM  |
| 144   | Malignant neoplasm of floor of mouth                                          | Diagnosis | ICD-9-CM  |
| 144.0 | Malignant neoplasm of anterior portion of floor of mouth                      | Diagnosis | ICD-9-CM  |
| 144.1 | Malignant neoplasm of lateral portion of floor of mouth                       | Diagnosis | ICD-9-CM  |
| 144.8 | Malignant neoplasm of other sites of floor of mouth                           | Diagnosis | ICD-9-CM  |
| 144.9 | Malignant neoplasm of floor of mouth, part unspecified                        | Diagnosis | ICD-9-CM  |
| 145   | Malignant neoplasm of other and unspecified parts of mouth                    | Diagnosis | ICD-9-CM  |
| 145.0 | Malignant neoplasm of cheek mucosa                                            | Diagnosis | ICD-9-CM  |
| 145.1 | Malignant neoplasm of vestibule of mouth                                      | Diagnosis | ICD-9-CM  |
| 145.2 | Malignant neoplasm of hard palate                                             | Diagnosis | ICD-9-CM  |
| 145.3 | Malignant neoplasm of soft palate                                             | Diagnosis | ICD-9-CM  |
| 145.4 | Malignant neoplasm of uvula                                                   | Diagnosis | ICD-9-CM  |
| 145.5 | Malignant neoplasm of palate, unspecified                                     | Diagnosis | ICD-9-CM  |
| 145.6 | Malignant neoplasm of retromolar area                                         | Diagnosis | ICD-9-CM  |
| 145.8 | Malignant neoplasm of other specified parts of mouth                          | Diagnosis | ICD-9-CM  |
| 145.9 | Malignant neoplasm of mouth, unspecified site                                 | Diagnosis | ICD-9-CM  |
| 146   | Malignant neoplasm of oropharynx                                              | Diagnosis | ICD-9-CM  |
| 146.0 | Malignant neoplasm of tonsil                                                  | Diagnosis | ICD-9-CM  |
| 146.1 | Malignant neoplasm of tonsillar fossa                                         | Diagnosis | ICD-9-CM  |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                | Code      |           |
|-------|--------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                            | Category  | Code Type |
| 146.2 | Malignant neoplasm of tonsillar pillars (anterior) (posterior)                             | Diagnosis | ICD-9-CM  |
| 146.3 | Malignant neoplasm of vallecula                                                            | Diagnosis | ICD-9-CM  |
| 146.4 | Malignant neoplasm of anterior aspect of epiglottis                                        | Diagnosis | ICD-9-CM  |
| 146.5 | Malignant neoplasm of junctional region of oropharynx                                      | Diagnosis | ICD-9-CM  |
| 146.6 | Malignant neoplasm of lateral wall of oropharynx                                           | Diagnosis | ICD-9-CM  |
| 146.7 | Malignant neoplasm of posterior wall of oropharynx                                         | Diagnosis | ICD-9-CM  |
| 146.8 | Malignant neoplasm of other specified sites of oropharynx                                  | Diagnosis | ICD-9-CM  |
| 146.9 | Malignant neoplasm of oropharynx, unspecified site                                         | Diagnosis | ICD-9-CM  |
| 147   | Malignant neoplasm of nasopharynx                                                          | Diagnosis | ICD-9-CM  |
| 147.0 | Malignant neoplasm of superior wall of nasopharynx                                         | Diagnosis | ICD-9-CM  |
| 147.1 | Malignant neoplasm of posterior wall of nasopharynx                                        | Diagnosis | ICD-9-CM  |
| 147.2 | Malignant neoplasm of lateral wall of nasopharynx                                          | Diagnosis | ICD-9-CM  |
| 147.3 | Malignant neoplasm of anterior wall of nasopharynx                                         | Diagnosis | ICD-9-CM  |
| 147.8 | Malignant neoplasm of other specified sites of nasopharynx                                 | Diagnosis | ICD-9-CM  |
| 147.9 | Malignant neoplasm of nasopharynx, unspecified site                                        | Diagnosis | ICD-9-CM  |
| 148   | Malignant neoplasm of hypopharynx                                                          | Diagnosis | ICD-9-CM  |
| 148.0 | Malignant neoplasm of postcricoid region of hypopharynx                                    | Diagnosis | ICD-9-CM  |
| 148.1 | Malignant neoplasm of pyriform sinus                                                       | Diagnosis | ICD-9-CM  |
| 148.2 | Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect                            | Diagnosis | ICD-9-CM  |
| 148.3 | Malignant neoplasm of posterior hypopharyngeal wall                                        | Diagnosis | ICD-9-CM  |
| 148.8 | Malignant neoplasm of other specified sites of hypopharynx                                 | Diagnosis | ICD-9-CM  |
| 148.9 | Malignant neoplasm of hypopharynx, unspecified site                                        | Diagnosis | ICD-9-CM  |
| 149   | Malignant neoplasm of other and ill-defined sites within the lip, oral cavity, and pharynx | Diagnosis | ICD-9-CM  |
| 149.0 | Malignant neoplasm of pharynx, unspecified                                                 | Diagnosis | ICD-9-CM  |
| 149.1 | Malignant neoplasm of Waldeyer's ring                                                      | Diagnosis | ICD-9-CM  |
| 149.8 | Malignant neoplasm of other sites within the lip and oral cavity                           | Diagnosis | ICD-9-CM  |
| 149.9 | Malignant neoplasm of ill-defined sites of lip and oral cavity                             | Diagnosis | ICD-9-CM  |
| 150   | Malignant neoplasm of esophagus                                                            | Diagnosis | ICD-9-CM  |
| 150.0 | Malignant neoplasm of cervical esophagus                                                   | Diagnosis | ICD-9-CM  |
| 150.1 | Malignant neoplasm of thoracic esophagus                                                   | Diagnosis | ICD-9-CM  |
| 150.2 | Malignant neoplasm of abdominal esophagus                                                  | Diagnosis | ICD-9-CM  |
| 150.3 | Malignant neoplasm of upper third of esophagus                                             | Diagnosis | ICD-9-CM  |
| 150.4 | Malignant neoplasm of middle third of esophagus                                            | Diagnosis | ICD-9-CM  |
| 150.5 | Malignant neoplasm of lower third of esophagus                                             | Diagnosis | ICD-9-CM  |
| 150.8 | Malignant neoplasm of other specified part of esophagus                                    | Diagnosis | ICD-9-CM  |
| 150.9 | Malignant neoplasm of esophagus, unspecified site                                          | Diagnosis | ICD-9-CM  |
| 151   | Malignant neoplasm of stomach                                                              | Diagnosis | ICD-9-CM  |
| 151.0 | Malignant neoplasm of cardia                                                               | Diagnosis | ICD-9-CM  |
| 151.1 | Malignant neoplasm of pylorus                                                              | Diagnosis | ICD-9-CM  |
| 151.2 | Malignant neoplasm of pyloric antrum                                                       | Diagnosis | ICD-9-CM  |
| 151.3 | Malignant neoplasm of fundus of stomach                                                    | Diagnosis | ICD-9-CM  |
| 151.4 | Malignant neoplasm of body of stomach                                                      | Diagnosis | ICD-9-CM  |
| 151.5 | Malignant neoplasm of lesser curvature of stomach, unspecified                             | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                            | Code      |           |
|-------|----------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                        | Category  | Code Type |
| 151.6 | Malignant neoplasm of greater curvature of stomach, unspecified                        | Diagnosis | ICD-9-CM  |
| 151.8 | Malignant neoplasm of other specified sites of stomach                                 | Diagnosis | ICD-9-CM  |
| 151.9 | Malignant neoplasm of stomach, unspecified site                                        | Diagnosis | ICD-9-CM  |
| 152   | Malignant neoplasm of small intestine, including duodenum                              | Diagnosis | ICD-9-CM  |
| 152.0 | Malignant neoplasm of duodenum                                                         | Diagnosis | ICD-9-CM  |
| 152.1 | Malignant neoplasm of jejunum                                                          | Diagnosis | ICD-9-CM  |
| 152.2 | Malignant neoplasm of ileum                                                            | Diagnosis | ICD-9-CM  |
| 152.3 | Malignant neoplasm of Meckel's diverticulum                                            | Diagnosis | ICD-9-CM  |
| 152.8 | Malignant neoplasm of other specified sites of small intestine                         | Diagnosis | ICD-9-CM  |
| 152.9 | Malignant neoplasm of small intestine, unspecified site                                | Diagnosis | ICD-9-CM  |
| 153   | Malignant neoplasm of colon                                                            | Diagnosis | ICD-9-CM  |
| 153.0 | Malignant neoplasm of hepatic flexure                                                  | Diagnosis | ICD-9-CM  |
| 153.1 | Malignant neoplasm of transverse colon                                                 | Diagnosis | ICD-9-CM  |
| 153.2 | Malignant neoplasm of descending colon                                                 | Diagnosis | ICD-9-CM  |
| 153.3 | Malignant neoplasm of sigmoid colon                                                    | Diagnosis | ICD-9-CM  |
| 153.4 | Malignant neoplasm of cecum                                                            | Diagnosis | ICD-9-CM  |
| 153.5 | Malignant neoplasm of appendix                                                         | Diagnosis | ICD-9-CM  |
| 153.6 | Malignant neoplasm of ascending colon                                                  | Diagnosis | ICD-9-CM  |
| 153.7 | Malignant neoplasm of splenic flexure                                                  | Diagnosis | ICD-9-CM  |
| 153.8 | Malignant neoplasm of other specified sites of large intestine                         | Diagnosis | ICD-9-CM  |
| 153.9 | Malignant neoplasm of colon, unspecified site                                          | Diagnosis | ICD-9-CM  |
| 154   | Malignant neoplasm of rectum, rectosigmoid junction, and anus                          | Diagnosis | ICD-9-CM  |
| 154.0 | Malignant neoplasm of rectosigmoid junction                                            | Diagnosis | ICD-9-CM  |
| 154.1 | Malignant neoplasm of rectum                                                           | Diagnosis | ICD-9-CM  |
| 154.2 | Malignant neoplasm of anal canal                                                       | Diagnosis | ICD-9-CM  |
| 154.3 | Malignant neoplasm of anus, unspecified site                                           | Diagnosis | ICD-9-CM  |
| 154.8 | Malignant neoplasm of other sites of rectum, rectosigmoid junction, and anus           | Diagnosis | ICD-9-CM  |
| 155   | Malignant neoplasm of liver and intrahepatic bile ducts                                | Diagnosis | ICD-9-CM  |
| 155.0 | Malignant neoplasm of liver, primary                                                   | Diagnosis | ICD-9-CM  |
| 155.1 | Malignant neoplasm of intrahepatic bile ducts                                          | Diagnosis | ICD-9-CM  |
| 155.2 | Malignant neoplasm of liver, not specified as primary or secondary                     | Diagnosis | ICD-9-CM  |
| 156   | Malignant neoplasm of gallbladder and extrahepatic bile ducts                          | Diagnosis | ICD-9-CM  |
| 156.0 | Malignant neoplasm of gallbladder                                                      | Diagnosis | ICD-9-CM  |
| 156.1 | Malignant neoplasm of extrahepatic bile ducts                                          | Diagnosis | ICD-9-CM  |
| 156.2 | Malignant neoplasm of ampulla of Vater                                                 | Diagnosis | ICD-9-CM  |
| 156.8 | Malignant neoplasm of other specified sites of gallbladder and extrahepatic bile ducts | Diagnosis | ICD-9-CM  |
| 156.9 | Malignant neoplasm of biliary tract, part unspecified site                             | Diagnosis | ICD-9-CM  |
| 157   | Malignant neoplasm of pancreas                                                         | Diagnosis | ICD-9-CM  |
| 157.0 | Malignant neoplasm of head of pancreas                                                 | Diagnosis | ICD-9-CM  |
| 157.1 | Malignant neoplasm of body of pancreas                                                 | Diagnosis | ICD-9-CM  |
| 157.2 | Malignant neoplasm of tail of pancreas                                                 | Diagnosis | ICD-9-CM  |
| 157.3 | Malignant neoplasm of pancreatic duct                                                  | Diagnosis | ICD-9-CM  |
| 157.4 | Malignant neoplasm of islets of Langerhans                                             | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                     | Code      | Code Type |
|-------|-------------------------------------------------------------------------------------------------|-----------|-----------|
| 157.8 | Malignant neoplasm of other specified sites of pancreas                                         | Diagnosis | ICD-9-CM  |
| 157.9 | Malignant neoplasm of pancreas, part unspecified                                                | Diagnosis | ICD-9-CM  |
| 158   | Malignant neoplasm of retroperitoneum and peritoneum                                            | Diagnosis | ICD-9-CM  |
| 158.0 | Malignant neoplasm of retroperitoneum                                                           | Diagnosis | ICD-9-CM  |
| 158.8 | Malignant neoplasm of specified parts of peritoneum                                             | Diagnosis | ICD-9-CM  |
| 158.9 | Malignant neoplasm of peritoneum, unspecified                                                   | Diagnosis | ICD-9-CM  |
| 159   | Malignant neoplasm of other and ill-defined sites within the digestive organs and peritoneum    | Diagnosis | ICD-9-CM  |
| 159.0 | Malignant neoplasm of intestinal tract, part unspecified                                        | Diagnosis | ICD-9-CM  |
| 159.1 | Malignant neoplasm of spleen, not elsewhere classified                                          | Diagnosis | ICD-9-CM  |
| 159.8 | Malignant neoplasm of other sites of digestive system and intra-abdominal organs                | Diagnosis | ICD-9-CM  |
| 159.9 | Malignant neoplasm of ill-defined sites of digestive organs and peritoneum                      | Diagnosis | ICD-9-CM  |
| 160   | Malignant neoplasm of nasal cavities, middle ear, and accessory sinuses                         | Diagnosis | ICD-9-CM  |
| 160.0 | Malignant neoplasm of nasal cavities                                                            | Diagnosis | ICD-9-CM  |
| 160.1 | Malignant neoplasm of auditory tube, middle ear, and mastoid air cells                          | Diagnosis | ICD-9-CM  |
| 160.2 | Malignant neoplasm of maxillary sinus                                                           | Diagnosis | ICD-9-CM  |
| 160.3 | Malignant neoplasm of ethmoidal sinus                                                           | Diagnosis | ICD-9-CM  |
| 160.4 | Malignant neoplasm of frontal sinus                                                             | Diagnosis | ICD-9-CM  |
| 160.5 | Malignant neoplasm of sphenoidal sinus                                                          | Diagnosis | ICD-9-CM  |
| 160.8 | Malignant neoplasm of other sites of nasal cavities, middle ear, and accessory sinuses          | Diagnosis | ICD-9-CM  |
| 160.9 | Malignant neoplasm of site of nasal cavities, middle ear, and accessory sinus, unspecified site | Diagnosis | ICD-9-CM  |
| 161   | Malignant neoplasm of larynx                                                                    | Diagnosis | ICD-9-CM  |
| 161.0 | Malignant neoplasm of glottis                                                                   | Diagnosis | ICD-9-CM  |
| 161.1 | Malignant neoplasm of supraglottis                                                              | Diagnosis | ICD-9-CM  |
| 161.2 | Malignant neoplasm of subglottis                                                                | Diagnosis | ICD-9-CM  |
| 161.3 | Malignant neoplasm of laryngeal cartilages                                                      | Diagnosis | ICD-9-CM  |
| 161.8 | Malignant neoplasm of other specified sites of larynx                                           | Diagnosis | ICD-9-CM  |
| 161.9 | Malignant neoplasm of larynx, unspecified site                                                  | Diagnosis | ICD-9-CM  |
| 162   | Malignant neoplasm of trachea, bronchus, and lung                                               | Diagnosis | ICD-9-CM  |
| 162.0 | Malignant neoplasm of trachea                                                                   | Diagnosis | ICD-9-CM  |
| 162.2 | Malignant neoplasm of main bronchus                                                             | Diagnosis | ICD-9-CM  |
| 162.3 | Malignant neoplasm of upper lobe, bronchus, or lung                                             | Diagnosis | ICD-9-CM  |
| 162.4 | Malignant neoplasm of middle lobe, bronchus, or lung                                            | Diagnosis | ICD-9-CM  |
| 162.5 | Malignant neoplasm of lower lobe, bronchus, or lung                                             | Diagnosis | ICD-9-CM  |
| 162.8 | Malignant neoplasm of other parts of bronchus or lung                                           | Diagnosis | ICD-9-CM  |
| 162.9 | Malignant neoplasm of bronchus and lung, unspecified site                                       | Diagnosis | ICD-9-CM  |
| 163   | Malignant neoplasm of pleura                                                                    | Diagnosis | ICD-9-CM  |
| 163.0 | Malignant neoplasm of parietal pleura                                                           | Diagnosis | ICD-9-CM  |
| 163.1 | Malignant neoplasm of visceral pleura                                                           | Diagnosis | ICD-9-CM  |
| 163.8 | Malignant neoplasm of other specified sites of pleura                                           | Diagnosis | ICD-9-CM  |
| 163.9 | Malignant neoplasm of pleura, unspecified site                                                  | Diagnosis | ICD-9-CM  |
| 164   | Malignant neoplasm of thymus, heart, and mediastinum                                            | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                              | Code      | Code Type |
|-------|----------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                          | Category  |           |
| 164.0 | Malignant neoplasm of thymus                                                                             | Diagnosis | ICD-9-CM  |
| 164.1 | Malignant neoplasm of heart                                                                              | Diagnosis | ICD-9-CM  |
| 164.2 | Malignant neoplasm of anterior mediastinum                                                               | Diagnosis | ICD-9-CM  |
| 164.3 | Malignant neoplasm of posterior mediastinum                                                              | Diagnosis | ICD-9-CM  |
| 164.8 | Malignant neoplasm of other parts of mediastinum                                                         | Diagnosis | ICD-9-CM  |
| 164.9 | Malignant neoplasm of mediastinum, part unspecified                                                      | Diagnosis | ICD-9-CM  |
| 165   | Malignant neoplasm of other and ill-defined sites within the respiratory system and intrathoracic organs | Diagnosis | ICD-9-CM  |
| 165.0 | Malignant neoplasm of upper respiratory tract, part unspecified                                          | Diagnosis | ICD-9-CM  |
| 165.8 | Malignant neoplasm of other sites within the respiratory system and intrathoracic organs                 | Diagnosis | ICD-9-CM  |
| 165.9 | Malignant neoplasm of ill-defined sites within the respiratory system                                    | Diagnosis | ICD-9-CM  |
| 170   | Malignant neoplasm of bone and articular cartilage                                                       | Diagnosis | ICD-9-CM  |
| 170.0 | Malignant neoplasm of bones of skull and face, except mandible                                           | Diagnosis | ICD-9-CM  |
| 170.1 | Malignant neoplasm of mandible                                                                           | Diagnosis | ICD-9-CM  |
| 170.2 | Malignant neoplasm of vertebral column, excluding sacrum and coccyx                                      | Diagnosis | ICD-9-CM  |
| 170.3 | Malignant neoplasm of ribs, sternum, and clavicle                                                        | Diagnosis | ICD-9-CM  |
| 170.4 | Malignant neoplasm of scapula and long bones of upper limb                                               | Diagnosis | ICD-9-CM  |
| 170.5 | Malignant neoplasm of short bones of upper limb                                                          | Diagnosis | ICD-9-CM  |
| 170.6 | Malignant neoplasm of pelvic bones, sacrum, and coccyx                                                   | Diagnosis | ICD-9-CM  |
| 170.7 | Malignant neoplasm of long bones of lower limb                                                           | Diagnosis | ICD-9-CM  |
| 170.8 | Malignant neoplasm of short bones of lower limb                                                          | Diagnosis | ICD-9-CM  |
| 170.9 | Malignant neoplasm of bone and articular cartilage, site unspecified                                     | Diagnosis | ICD-9-CM  |
| 171   | Malignant neoplasm of connective and other soft tissue                                                   | Diagnosis | ICD-9-CM  |
| 171.0 | Malignant neoplasm of connective and other soft tissue of head, face, and neck                           | Diagnosis | ICD-9-CM  |
| 171.2 | Malignant neoplasm of connective and other soft tissue of upper limb, including shoulder                 | Diagnosis | ICD-9-CM  |
| 171.3 | Malignant neoplasm of connective and other soft tissue of lower limb, including hip                      | Diagnosis | ICD-9-CM  |
| 171.4 | Malignant neoplasm of connective and other soft tissue of thorax                                         | Diagnosis | ICD-9-CM  |
| 171.5 | Malignant neoplasm of connective and other soft tissue of abdomen                                        | Diagnosis | ICD-9-CM  |
| 171.6 | Malignant neoplasm of connective and other soft tissue of pelvis                                         | Diagnosis | ICD-9-CM  |
| 171.7 | Malignant neoplasm of connective and other soft tissue of trunk, unspecified site                        | Diagnosis | ICD-9-CM  |
| 171.8 | Malignant neoplasm of other specified sites of connective and other soft tissue                          | Diagnosis | ICD-9-CM  |
| 171.9 | Malignant neoplasm of connective and other soft tissue, site unspecified                                 | Diagnosis | ICD-9-CM  |
| 172   | Malignant melanoma of skin                                                                               | Diagnosis | ICD-9-CM  |
| 172.0 | Malignant melanoma of skin of lip                                                                        | Diagnosis | ICD-9-CM  |
| 172.1 | Malignant melanoma of skin of eyelid, including canthus                                                  | Diagnosis | ICD-9-CM  |
| 172.2 | Malignant melanoma of skin of ear and external auditory canal                                            | Diagnosis | ICD-9-CM  |
| 172.3 | Malignant melanoma of skin of other and unspecified parts of face                                        | Diagnosis | ICD-9-CM  |
| 172.4 | Malignant melanoma of skin of scalp and neck                                                             | Diagnosis | ICD-9-CM  |
| 172.5 | Malignant melanoma of skin of trunk, except scrotum                                                      | Diagnosis | ICD-9-CM  |
| 172.6 | Malignant melanoma of skin of upper limb, including shoulder                                             | Diagnosis | ICD-9-CM  |
| 172.7 | Malignant melanoma of skin of lower limb, including hip                                                  | Diagnosis | ICD-9-CM  |
| 172.8 | Malignant melanoma of other specified sites of skin                                                      | Diagnosis | ICD-9-CM  |
| 172.9 | Melanoma of skin, site unspecified                                                                       | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                       | Code      |           |
|-------|-------------------------------------------------------------------|-----------|-----------|
|       |                                                                   | Category  | Code Type |
| 174   | Malignant neoplasm of female breast                               | Diagnosis | ICD-9-CM  |
| 174.0 | Malignant neoplasm of nipple and areola of female breast          | Diagnosis | ICD-9-CM  |
| 174.1 | Malignant neoplasm of central portion of female breast            | Diagnosis | ICD-9-CM  |
| 174.2 | Malignant neoplasm of upper-inner quadrant of female breast       | Diagnosis | ICD-9-CM  |
| 174.3 | Malignant neoplasm of lower-inner quadrant of female breast       | Diagnosis | ICD-9-CM  |
| 174.4 | Malignant neoplasm of upper-outer quadrant of female breast       | Diagnosis | ICD-9-CM  |
| 174.5 | Malignant neoplasm of lower-outer quadrant of female breast       | Diagnosis | ICD-9-CM  |
| 174.6 | Malignant neoplasm of axillary tail of female breast              | Diagnosis | ICD-9-CM  |
| 174.8 | Malignant neoplasm of other specified sites of female breast      | Diagnosis | ICD-9-CM  |
| 174.9 | Malignant neoplasm of breast (female), unspecified site           | Diagnosis | ICD-9-CM  |
| 175   | Malignant neoplasm of male breast                                 | Diagnosis | ICD-9-CM  |
| 175.0 | Malignant neoplasm of nipple and areola of male breast            | Diagnosis | ICD-9-CM  |
| 175.9 | Malignant neoplasm of other and unspecified sites of male breast  | Diagnosis | ICD-9-CM  |
| 176   | Kaposi's sarcoma                                                  | Diagnosis | ICD-9-CM  |
| 176.0 | Kaposi's sarcoma of skin                                          | Diagnosis | ICD-9-CM  |
| 176.1 | Kaposi's sarcoma of soft tissue                                   | Diagnosis | ICD-9-CM  |
| 176.2 | Kaposi's sarcoma of palate                                        | Diagnosis | ICD-9-CM  |
| 176.3 | Kaposi's sarcoma of gastrointestinal sites                        | Diagnosis | ICD-9-CM  |
| 176.4 | Kaposi's sarcoma of lung                                          | Diagnosis | ICD-9-CM  |
| 176.5 | Kaposi's sarcoma of lymph nodes                                   | Diagnosis | ICD-9-CM  |
| 176.8 | Kaposi's sarcoma of other specified sites                         | Diagnosis | ICD-9-CM  |
| 176.9 | Kaposi's sarcoma of unspecified site                              | Diagnosis | ICD-9-CM  |
| 179   | Malignant neoplasm of uterus, part unspecified                    | Diagnosis | ICD-9-CM  |
| 180   | Malignant neoplasm of cervix uteri                                | Diagnosis | ICD-9-CM  |
| 180.0 | Malignant neoplasm of endocervix                                  | Diagnosis | ICD-9-CM  |
| 180.1 | Malignant neoplasm of exocervix                                   | Diagnosis | ICD-9-CM  |
| 180.8 | Malignant neoplasm of other specified sites of cervix             | Diagnosis | ICD-9-CM  |
| 180.9 | Malignant neoplasm of cervix uteri, unspecified site              | Diagnosis | ICD-9-CM  |
| 181   | Malignant neoplasm of placenta                                    | Diagnosis | ICD-9-CM  |
| 182   | Malignant neoplasm of body of uterus                              | Diagnosis | ICD-9-CM  |
| 182.0 | Malignant neoplasm of corpus uteri, except isthmus                | Diagnosis | ICD-9-CM  |
| 182.1 | Malignant neoplasm of isthmus                                     | Diagnosis | ICD-9-CM  |
| 182.8 | Malignant neoplasm of other specified sites of body of uterus     | Diagnosis | ICD-9-CM  |
| 183   | Malignant neoplasm of ovary and other uterine adnexa              | Diagnosis | ICD-9-CM  |
| 183.0 | Malignant neoplasm of ovary                                       | Diagnosis | ICD-9-CM  |
| 183.2 | Malignant neoplasm of fallopian tube                              | Diagnosis | ICD-9-CM  |
| 183.3 | Malignant neoplasm of broad ligament of uterus                    | Diagnosis | ICD-9-CM  |
| 183.4 | Malignant neoplasm of parametrium of uterus                       | Diagnosis | ICD-9-CM  |
| 183.5 | Malignant neoplasm of round ligament of uterus                    | Diagnosis | ICD-9-CM  |
| 183.8 | Malignant neoplasm of other specified sites of uterine adnexa     | Diagnosis | ICD-9-CM  |
| 183.9 | Malignant neoplasm of uterine adnexa, unspecified site            | Diagnosis | ICD-9-CM  |
| 184   | Malignant neoplasm of other and unspecified female genital organs | Diagnosis | ICD-9-CM  |
| 184.0 | Malignant neoplasm of vagina                                      | Diagnosis | ICD-9-CM  |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                    | Code      |           |
|-------|--------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                | Category  | Code Type |
| 184.1 | Malignant neoplasm of labia majora                                             | Diagnosis | ICD-9-CM  |
| 184.2 | Malignant neoplasm of labia minora                                             | Diagnosis | ICD-9-CM  |
| 184.3 | Malignant neoplasm of clitoris                                                 | Diagnosis | ICD-9-CM  |
| 184.4 | Malignant neoplasm of vulva, unspecified site                                  | Diagnosis | ICD-9-CM  |
| 184.8 | Malignant neoplasm of other specified sites of female genital organs           | Diagnosis | ICD-9-CM  |
| 184.9 | Malignant neoplasm of female genital organ, site unspecified                   | Diagnosis | ICD-9-CM  |
| 185   | Malignant neoplasm of prostate                                                 | Diagnosis | ICD-9-CM  |
| 186   | Malignant neoplasm of testis                                                   | Diagnosis | ICD-9-CM  |
| 186.0 | Malignant neoplasm of undescended testis                                       | Diagnosis | ICD-9-CM  |
| 186.9 | Malignant neoplasm of other and unspecified testis                             | Diagnosis | ICD-9-CM  |
| 187   | Malignant neoplasm of penis and other male genital organs                      | Diagnosis | ICD-9-CM  |
| 187.1 | Malignant neoplasm of prepuce                                                  | Diagnosis | ICD-9-CM  |
| 187.2 | Malignant neoplasm of glans penis                                              | Diagnosis | ICD-9-CM  |
| 187.3 | Malignant neoplasm of body of penis                                            | Diagnosis | ICD-9-CM  |
| 187.4 | Malignant neoplasm of penis, part unspecified                                  | Diagnosis | ICD-9-CM  |
| 187.5 | Malignant neoplasm of epididymis                                               | Diagnosis | ICD-9-CM  |
| 187.6 | Malignant neoplasm of spermatic cord                                           | Diagnosis | ICD-9-CM  |
| 187.7 | Malignant neoplasm of scrotum                                                  | Diagnosis | ICD-9-CM  |
| 187.8 | Malignant neoplasm of other specified sites of male genital organs             | Diagnosis | ICD-9-CM  |
| 187.9 | Malignant neoplasm of male genital organ, site unspecified                     | Diagnosis | ICD-9-CM  |
| 188   | Malignant neoplasm of bladder                                                  | Diagnosis | ICD-9-CM  |
| 188.0 | Malignant neoplasm of trigone of urinary bladder                               | Diagnosis | ICD-9-CM  |
| 188.1 | Malignant neoplasm of dome of urinary bladder                                  | Diagnosis | ICD-9-CM  |
| 188.2 | Malignant neoplasm of lateral wall of urinary bladder                          | Diagnosis | ICD-9-CM  |
| 188.3 | Malignant neoplasm of anterior wall of urinary bladder                         | Diagnosis | ICD-9-CM  |
| 188.4 | Malignant neoplasm of posterior wall of urinary bladder                        | Diagnosis | ICD-9-CM  |
| 188.5 | Malignant neoplasm of bladder neck                                             | Diagnosis | ICD-9-CM  |
| 188.6 | Malignant neoplasm of ureteric orifice                                         | Diagnosis | ICD-9-CM  |
| 188.7 | Malignant neoplasm of urachus                                                  | Diagnosis | ICD-9-CM  |
| 188.8 | Malignant neoplasm of other specified sites of bladder                         | Diagnosis | ICD-9-CM  |
| 188.9 | Malignant neoplasm of bladder, part unspecified                                | Diagnosis | ICD-9-CM  |
| 189   | Malignant neoplasm of kidney and other and unspecified urinary organs          | Diagnosis | ICD-9-CM  |
| 189.0 | Malignant neoplasm of kidney, except pelvis                                    | Diagnosis | ICD-9-CM  |
| 189.1 | Malignant neoplasm of renal pelvis                                             | Diagnosis | ICD-9-CM  |
| 189.2 | Malignant neoplasm of ureter                                                   | Diagnosis | ICD-9-CM  |
| 189.3 | Malignant neoplasm of urethra                                                  | Diagnosis | ICD-9-CM  |
| 189.4 | Malignant neoplasm of paraurethral glands                                      | Diagnosis | ICD-9-CM  |
| 189.8 | Malignant neoplasm of other specified sites of urinary organs                  | Diagnosis | ICD-9-CM  |
| 189.9 | Malignant neoplasm of urinary organ, site unspecified                          | Diagnosis | ICD-9-CM  |
| 190   | Malignant neoplasm of eye                                                      | Diagnosis | ICD-9-CM  |
| 190.0 | Malignant neoplasm of eyeball, except conjunctiva, cornea, retina, and choroid | Diagnosis | ICD-9-CM  |
| 190.1 | Malignant neoplasm of orbit                                                    | Diagnosis | ICD-9-CM  |
| 190.2 | Malignant neoplasm of lacrimal gland                                           | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                         | Code      |           |
|-------|---------------------------------------------------------------------|-----------|-----------|
|       |                                                                     | Category  | Code Type |
| 190.3 | Malignant neoplasm of conjunctiva                                   | Diagnosis | ICD-9-CM  |
| 190.4 | Malignant neoplasm of cornea                                        | Diagnosis | ICD-9-CM  |
| 190.5 | Malignant neoplasm of retina                                        | Diagnosis | ICD-9-CM  |
| 190.6 | Malignant neoplasm of choroid                                       | Diagnosis | ICD-9-CM  |
| 190.7 | Malignant neoplasm of lacrimal duct                                 | Diagnosis | ICD-9-CM  |
| 190.8 | Malignant neoplasm of other specified sites of eye                  | Diagnosis | ICD-9-CM  |
| 190.9 | Malignant neoplasm of eye, part unspecified                         | Diagnosis | ICD-9-CM  |
| 191   | Malignant neoplasm of brain                                         | Diagnosis | ICD-9-CM  |
| 191.0 | Malignant neoplasm of cerebrum, except lobes and ventricles         | Diagnosis | ICD-9-CM  |
| 191.1 | Malignant neoplasm of frontal lobe of brain                         | Diagnosis | ICD-9-CM  |
| 191.2 | Malignant neoplasm of temporal lobe of brain                        | Diagnosis | ICD-9-CM  |
| 191.3 | Malignant neoplasm of parietal lobe of brain                        | Diagnosis | ICD-9-CM  |
| 191.4 | Malignant neoplasm of occipital lobe of brain                       | Diagnosis | ICD-9-CM  |
| 191.5 | Malignant neoplasm of ventricles of brain                           | Diagnosis | ICD-9-CM  |
| 191.6 | Malignant neoplasm of cerebellum NOS                                | Diagnosis | ICD-9-CM  |
| 191.7 | Malignant neoplasm of brain stem                                    | Diagnosis | ICD-9-CM  |
| 191.8 | Malignant neoplasm of other parts of brain                          | Diagnosis | ICD-9-CM  |
| 191.9 | Malignant neoplasm of brain, unspecified site                       | Diagnosis | ICD-9-CM  |
| 192   | Malignant neoplasm of other and unspecified parts of nervous system | Diagnosis | ICD-9-CM  |
| 192.0 | Malignant neoplasm of cranial nerves                                | Diagnosis | ICD-9-CM  |
| 192.1 | Malignant neoplasm of cerebral meninges                             | Diagnosis | ICD-9-CM  |
| 192.2 | Malignant neoplasm of spinal cord                                   | Diagnosis | ICD-9-CM  |
| 192.3 | Malignant neoplasm of spinal meninges                               | Diagnosis | ICD-9-CM  |
| 192.8 | Malignant neoplasm of other specified sites of nervous system       | Diagnosis | ICD-9-CM  |
| 192.9 | Malignant neoplasm of nervous system, part unspecified              | Diagnosis | ICD-9-CM  |
| 193   | Malignant neoplasm of thyroid gland                                 | Diagnosis | ICD-9-CM  |
| 194   | Malignant neoplasm of other endocrine glands and related structures | Diagnosis | ICD-9-CM  |
| 194.0 | Malignant neoplasm of adrenal gland                                 | Diagnosis | ICD-9-CM  |
| 194.1 | Malignant neoplasm of parathyroid gland                             | Diagnosis | ICD-9-CM  |
| 194.3 | Malignant neoplasm of pituitary gland and craniopharyngeal duct     | Diagnosis | ICD-9-CM  |
| 194.4 | Malignant neoplasm of pineal gland                                  | Diagnosis | ICD-9-CM  |
| 194.5 | Malignant neoplasm of carotid body                                  | Diagnosis | ICD-9-CM  |
| 194.6 | Malignant neoplasm of aortic body and other paraganglia             | Diagnosis | ICD-9-CM  |
| 194.8 | Malignant neoplasm of other endocrine glands and related structures | Diagnosis | ICD-9-CM  |
| 194.9 | Malignant neoplasm of endocrine gland, site unspecified             | Diagnosis | ICD-9-CM  |
| 195   | Malignant neoplasm of other and ill-defined sites                   | Diagnosis | ICD-9-CM  |
| 195.0 | Malignant neoplasm of head, face, and neck                          | Diagnosis | ICD-9-CM  |
| 195.1 | Malignant neoplasm of thorax                                        | Diagnosis | ICD-9-CM  |
| 195.2 | Malignant neoplasm of abdomen                                       | Diagnosis | ICD-9-CM  |
| 195.3 | Malignant neoplasm of pelvis                                        | Diagnosis | ICD-9-CM  |
| 195.4 | Malignant neoplasm of upper limb                                    | Diagnosis | ICD-9-CM  |
| 195.5 | Malignant neoplasm of lower limb                                    | Diagnosis | ICD-9-CM  |
| 195.8 | Malignant neoplasm of other specified sites                         | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                   | Code      |           |
|--------|-----------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                               | Category  | Code Type |
| 196    | Secondary and unspecified malignant neoplasm of lymph nodes                                   | Diagnosis | ICD-9-CM  |
| 196.0  | Secondary and unspecified malignant neoplasm of lymph nodes of head, face, and neck           | Diagnosis | ICD-9-CM  |
| 196.1  | Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes                     | Diagnosis | ICD-9-CM  |
| 196.2  | Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes                   | Diagnosis | ICD-9-CM  |
| 196.3  | Secondary and unspecified malignant neoplasm of lymph nodes of axilla and upper limb          | Diagnosis | ICD-9-CM  |
| 196.5  | Secondary and unspecified malignant neoplasm of lymph nodes of inguinal region and lower limb | Diagnosis | ICD-9-CM  |
| 196.6  | Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes                       | Diagnosis | ICD-9-CM  |
| 196.8  | Secondary and unspecified malignant neoplasm of lymph nodes of multiple sites                 | Diagnosis | ICD-9-CM  |
| 196.9  | Secondary and unspecified malignant neoplasm of lymph nodes, site unspecified                 | Diagnosis | ICD-9-CM  |
| 197    | Secondary malignant neoplasm of respiratory and digestive systems                             | Diagnosis | ICD-9-CM  |
| 197.0  | Secondary malignant neoplasm of lung                                                          | Diagnosis | ICD-9-CM  |
| 197.1  | Secondary malignant neoplasm of mediastinum                                                   | Diagnosis | ICD-9-CM  |
| 197.2  | Secondary malignant neoplasm of pleura                                                        | Diagnosis | ICD-9-CM  |
| 197.3  | Secondary malignant neoplasm of other respiratory organs                                      | Diagnosis | ICD-9-CM  |
| 197.4  | Secondary malignant neoplasm of small intestine including duodenum                            | Diagnosis | ICD-9-CM  |
| 197.5  | Secondary malignant neoplasm of large intestine and rectum                                    | Diagnosis | ICD-9-CM  |
| 197.6  | Secondary malignant neoplasm of retroperitoneum and peritoneum                                | Diagnosis | ICD-9-CM  |
| 197.7  | Secondary malignant neoplasm of liver                                                         | Diagnosis | ICD-9-CM  |
| 197.8  | Secondary malignant neoplasm of other digestive organs and spleen                             | Diagnosis | ICD-9-CM  |
| 198    | Secondary malignant neoplasm of other specified sites                                         | Diagnosis | ICD-9-CM  |
| 198.0  | Secondary malignant neoplasm of kidney                                                        | Diagnosis | ICD-9-CM  |
| 198.1  | Secondary malignant neoplasm of other urinary organs                                          | Diagnosis | ICD-9-CM  |
| 198.2  | Secondary malignant neoplasm of skin                                                          | Diagnosis | ICD-9-CM  |
| 198.3  | Secondary malignant neoplasm of brain and spinal cord                                         | Diagnosis | ICD-9-CM  |
| 198.4  | Secondary malignant neoplasm of other parts of nervous system                                 | Diagnosis | ICD-9-CM  |
| 198.5  | Secondary malignant neoplasm of bone and bone marrow                                          | Diagnosis | ICD-9-CM  |
| 198.6  | Secondary malignant neoplasm of ovary                                                         | Diagnosis | ICD-9-CM  |
| 198.7  | Secondary malignant neoplasm of adrenal gland                                                 | Diagnosis | ICD-9-CM  |
| 198.8  | Secondary malignant neoplasm of other specified sites                                         | Diagnosis | ICD-9-CM  |
| 198.81 | Secondary malignant neoplasm of breast                                                        | Diagnosis | ICD-9-CM  |
| 198.82 | Secondary malignant neoplasm of genital organs                                                | Diagnosis | ICD-9-CM  |
| 198.89 | Secondary malignant neoplasm of other specified sites                                         | Diagnosis | ICD-9-CM  |
| 199    | Malignant neoplasm without specification of site                                              | Diagnosis | ICD-9-CM  |
| 199.0  | Disseminated malignant neoplasm                                                               | Diagnosis | ICD-9-CM  |
| 199.1  | Other malignant neoplasm of unspecified site                                                  | Diagnosis | ICD-9-CM  |
| 199.2  | Malignant neoplasm associated with transplanted organ                                         | Diagnosis | ICD-9-CM  |
| 200    | Lymphosarcoma and reticulosarcoma and other specified malignant tumors of lymphatic tissue    | Diagnosis | ICD-9-CM  |
| 200.0  | Reticulosarcoma                                                                               | Diagnosis | ICD-9-CM  |
| 200.00 | Reticulosarcoma, unspecified site, extranodal and solid organ sites                           | Diagnosis | ICD-9-CM  |
| 200.01 | Reticulosarcoma of lymph nodes of head, face, and neck                                        | Diagnosis | ICD-9-CM  |
| 200.02 | Reticulosarcoma of intrathoracic lymph nodes                                                  | Diagnosis | ICD-9-CM  |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                     | Code      |           |
|--------|---------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                 | Category  | Code Type |
| 200.03 | Reticulosarcoma of intra-abdominal lymph nodes                                  | Diagnosis | ICD-9-CM  |
| 200.04 | Reticulosarcoma of lymph nodes of axilla and upper limb                         | Diagnosis | ICD-9-CM  |
| 200.05 | Reticulosarcoma of lymph nodes of inguinal region and lower limb                | Diagnosis | ICD-9-CM  |
| 200.06 | Reticulosarcoma of intrapelvic lymph nodes                                      | Diagnosis | ICD-9-CM  |
| 200.07 | Reticulosarcoma of spleen                                                       | Diagnosis | ICD-9-CM  |
| 200.08 | Reticulosarcoma of lymph nodes of multiple sites                                | Diagnosis | ICD-9-CM  |
| 200.1  | Lymphosarcoma                                                                   | Diagnosis | ICD-9-CM  |
| 200.10 | Lymphosarcoma, unspecified site, extranodal and solid organ sites               | Diagnosis | ICD-9-CM  |
| 200.11 | Lymphosarcoma of lymph nodes of head, face, and neck                            | Diagnosis | ICD-9-CM  |
| 200.12 | Lymphosarcoma of intrathoracic lymph nodes                                      | Diagnosis | ICD-9-CM  |
| 200.13 | Lymphosarcoma of intra-abdominal lymph nodes                                    | Diagnosis | ICD-9-CM  |
| 200.14 | Lymphosarcoma of lymph nodes of axilla and upper limb                           | Diagnosis | ICD-9-CM  |
| 200.15 | Lymphosarcoma of lymph nodes of inguinal region and lower limb                  | Diagnosis | ICD-9-CM  |
| 200.16 | Lymphosarcoma of intrapelvic lymph nodes                                        | Diagnosis | ICD-9-CM  |
| 200.17 | Lymphosarcoma of spleen                                                         | Diagnosis | ICD-9-CM  |
| 200.18 | Lymphosarcoma of lymph nodes of multiple sites                                  | Diagnosis | ICD-9-CM  |
| 200.2  | Burkitt's tumor or lymphoma                                                     | Diagnosis | ICD-9-CM  |
| 200.20 | Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 200.21 | Burkitt's tumor or lymphoma of lymph nodes of head, face, and neck              | Diagnosis | ICD-9-CM  |
| 200.22 | Burkitt's tumor or lymphoma of intrathoracic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 200.23 | Burkitt's tumor or lymphoma of intra-abdominal lymph nodes                      | Diagnosis | ICD-9-CM  |
| 200.24 | Burkitt's tumor or lymphoma of lymph nodes of axilla and upper limb             | Diagnosis | ICD-9-CM  |
| 200.25 | Burkitt's tumor or lymphoma of lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-9-CM  |
| 200.26 | Burkitt's tumor or lymphoma of intrapelvic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 200.27 | Burkitt's tumor or lymphoma of spleen                                           | Diagnosis | ICD-9-CM  |
| 200.28 | Burkitt's tumor or lymphoma of lymph nodes of multiple sites                    | Diagnosis | ICD-9-CM  |
| 200.3  | Marginal zone lymphoma                                                          | Diagnosis | ICD-9-CM  |
| 200.30 | Marginal zone lymphoma, unspecified site, extranodal and solid organ sites      | Diagnosis | ICD-9-CM  |
| 200.31 | Marginal zone lymphoma, lymph nodes of head, face, and neck                     | Diagnosis | ICD-9-CM  |
| 200.32 | Marginal zone lymphoma, intrathoracic lymph nodes                               | Diagnosis | ICD-9-CM  |
| 200.33 | Marginal zone lymphoma, intra-abdominal lymph nodes                             | Diagnosis | ICD-9-CM  |
| 200.34 | Marginal zone lymphoma, lymph nodes of axilla and upper limb                    | Diagnosis | ICD-9-CM  |
| 200.35 | Marginal zone lymphoma, lymph nodes of inguinal region and lower limb           | Diagnosis | ICD-9-CM  |
| 200.36 | Marginal zone lymphoma, intrapelvic lymph nodes                                 | Diagnosis | ICD-9-CM  |
| 200.37 | Marginal zone lymphoma, spleen                                                  | Diagnosis | ICD-9-CM  |
| 200.38 | Marginal zone lymphoma, lymph nodes of multiple sites                           | Diagnosis | ICD-9-CM  |
| 200.4  | Mantle cell lymphoma                                                            | Diagnosis | ICD-9-CM  |
| 200.40 | Mantle cell lymphoma, unspecified site, extranodal and solid organ sites        | Diagnosis | ICD-9-CM  |
| 200.41 | Mantle cell lymphoma, lymph nodes of head, face, and neck                       | Diagnosis | ICD-9-CM  |
| 200.42 | Mantle cell lymphoma, intrathoracic lymph nodes                                 | Diagnosis | ICD-9-CM  |
| 200.43 | Mantle cell lymphoma, intra-abdominal lymph nodes                               | Diagnosis | ICD-9-CM  |
| 200.44 | Mantle cell lymphoma, lymph nodes of axilla and upper limb                      | Diagnosis | ICD-9-CM  |
| 200.45 | Mantle cell lymphoma, lymph nodes of inguinal region and lower limb             | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                      | Code      |           |
|--------|--------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                  | Category  | Code Type |
| 200.46 | Mantle cell lymphoma, intrapelvic lymph nodes                                                    | Diagnosis | ICD-9-CM  |
| 200.47 | Mantle cell lymphoma, spleen                                                                     | Diagnosis | ICD-9-CM  |
| 200.48 | Mantle cell lymphoma, lymph nodes of multiple sites                                              | Diagnosis | ICD-9-CM  |
| 200.5  | Primary central nervous system lymphoma                                                          | Diagnosis | ICD-9-CM  |
| 200.50 | Primary central nervous system lymphoma, unspecified site, extranodal and solid organ sites      | Diagnosis | ICD-9-CM  |
| 200.51 | Primary central nervous system lymphoma, lymph nodes of head, face, and neck                     | Diagnosis | ICD-9-CM  |
| 200.52 | Primary central nervous system lymphoma, intrathoracic lymph nodes                               | Diagnosis | ICD-9-CM  |
| 200.53 | Primary central nervous system lymphoma, intra-abdominal lymph nodes                             | Diagnosis | ICD-9-CM  |
| 200.54 | Primary central nervous system lymphoma, lymph nodes of axilla and upper limb                    | Diagnosis | ICD-9-CM  |
| 200.55 | Primary central nervous system lymphoma, lymph nodes of inguinal region and lower limb           | Diagnosis | ICD-9-CM  |
| 200.56 | Primary central nervous system lymphoma, intrapelvic lymph nodes                                 | Diagnosis | ICD-9-CM  |
| 200.57 | Primary central nervous system lymphoma, spleen                                                  | Diagnosis | ICD-9-CM  |
| 200.58 | Primary central nervous system lymphoma, lymph nodes of multiple sites                           | Diagnosis | ICD-9-CM  |
| 200.6  | Anaplastic large cell lymphoma                                                                   | Diagnosis | ICD-9-CM  |
| 200.60 | Anaplastic large cell lymphoma, unspecified site, extranodal and solid organ sites               | Diagnosis | ICD-9-CM  |
| 200.61 | Anaplastic large cell lymphoma, lymph nodes of head, face, and neck                              | Diagnosis | ICD-9-CM  |
| 200.62 | Anaplastic large cell lymphoma, intrathoracic lymph nodes                                        | Diagnosis | ICD-9-CM  |
| 200.63 | Anaplastic large cell lymphoma, intra-abdominal lymph nodes                                      | Diagnosis | ICD-9-CM  |
| 200.64 | Anaplastic large cell lymphoma, lymph nodes of axilla and upper limb                             | Diagnosis | ICD-9-CM  |
| 200.65 | Anaplastic large cell lymphoma, lymph nodes of inguinal region and lower limb                    | Diagnosis | ICD-9-CM  |
| 200.66 | Anaplastic large cell lymphoma, intrapelvic lymph nodes                                          | Diagnosis | ICD-9-CM  |
| 200.67 | Anaplastic large cell lymphoma, spleen                                                           | Diagnosis | ICD-9-CM  |
| 200.68 | Anaplastic large cell lymphoma, lymph nodes of multiple sites                                    | Diagnosis | ICD-9-CM  |
| 200.7  | Large cell lymphoma                                                                              | Diagnosis | ICD-9-CM  |
| 200.70 | Large cell lymphoma, unspecified site, extranodal and solid organ sites                          | Diagnosis | ICD-9-CM  |
| 200.71 | Large cell lymphoma, lymph nodes of head, face, and neck                                         | Diagnosis | ICD-9-CM  |
| 200.72 | Large cell lymphoma, intrathoracic lymph nodes                                                   | Diagnosis | ICD-9-CM  |
| 200.73 | Large cell lymphoma, intra-abdominal lymph nodes                                                 | Diagnosis | ICD-9-CM  |
| 200.74 | Large cell lymphoma, lymph nodes of axilla and upper limb                                        | Diagnosis | ICD-9-CM  |
| 200.75 | Large cell lymphoma, lymph nodes of inguinal region and lower limb                               | Diagnosis | ICD-9-CM  |
| 200.76 | Large cell lymphoma, intrapelvic lymph nodes                                                     | Diagnosis | ICD-9-CM  |
| 200.77 | Large cell lymphoma, spleen                                                                      | Diagnosis | ICD-9-CM  |
| 200.78 | Large cell lymphoma, lymph nodes of multiple sites                                               | Diagnosis | ICD-9-CM  |
| 200.8  | Other named variants of lymphosarcoma and reticulosarcoma                                        | Diagnosis | ICD-9-CM  |
| 200.80 | Other named variants, unspecified site, extranodal and solid organ sites                         | Diagnosis | ICD-9-CM  |
| 200.81 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of head, face, and neck | Diagnosis | ICD-9-CM  |
| 200.82 | Other named variants of lymphosarcoma and reticulosarcoma of intrathoracic lymph nodes           | Diagnosis | ICD-9-CM  |
| 200.83 | Other named variants of lymphosarcoma and reticulosarcoma of intra-abdominal lymph nodes         | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                                 | Code      | Code Type |
|--------|-------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                             | Category  |           |
| 200.84 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of axilla and upper limb           | Diagnosis | ICD-9-CM  |
| 200.85 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of inguinal region and lower limb  | Diagnosis | ICD-9-CM  |
| 200.86 | Other named variants of lymphosarcoma and reticulosarcoma of intrapelvic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 200.87 | Other named variants of lymphosarcoma and reticulosarcoma of spleen                                         | Diagnosis | ICD-9-CM  |
| 200.88 | Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of multiple sites                  | Diagnosis | ICD-9-CM  |
| 201    | Hodgkin's disease                                                                                           | Diagnosis | ICD-9-CM  |
| 201.0  | Hodgkin's paraganuloma                                                                                      | Diagnosis | ICD-9-CM  |
| 201.00 | Hodgkin's paraganuloma, unspecified site, extranodal and solid organ sites                                  | Diagnosis | ICD-9-CM  |
| 201.01 | Hodgkin's paraganuloma of lymph nodes of head, face, and neck                                               | Diagnosis | ICD-9-CM  |
| 201.02 | Hodgkin's paraganuloma of intrathoracic lymph nodes                                                         | Diagnosis | ICD-9-CM  |
| 201.03 | Hodgkin's paraganuloma of intra-abdominal lymph nodes                                                       | Diagnosis | ICD-9-CM  |
| 201.04 | Hodgkin's paraganuloma of lymph nodes of axilla and upper limb                                              | Diagnosis | ICD-9-CM  |
| 201.05 | Hodgkin's paraganuloma of lymph nodes of inguinal region and lower limb                                     | Diagnosis | ICD-9-CM  |
| 201.06 | Hodgkin's paraganuloma of intrapelvic lymph nodes                                                           | Diagnosis | ICD-9-CM  |
| 201.07 | Hodgkin's paraganuloma of spleen                                                                            | Diagnosis | ICD-9-CM  |
| 201.08 | Hodgkin's paraganuloma of lymph nodes of multiple sites                                                     | Diagnosis | ICD-9-CM  |
| 201.1  | Hodgkin's granuloma                                                                                         | Diagnosis | ICD-9-CM  |
| 201.10 | Hodgkin's granuloma, unspecified site, extranodal and solid organ sites                                     | Diagnosis | ICD-9-CM  |
| 201.11 | Hodgkin's granuloma of lymph nodes of head, face, and neck                                                  | Diagnosis | ICD-9-CM  |
| 201.12 | Hodgkin's granuloma of intrathoracic lymph nodes                                                            | Diagnosis | ICD-9-CM  |
| 201.13 | Hodgkin's granuloma of intra-abdominal lymph nodes                                                          | Diagnosis | ICD-9-CM  |
| 201.14 | Hodgkin's granuloma of lymph nodes of axilla and upper limb                                                 | Diagnosis | ICD-9-CM  |
| 201.15 | Hodgkin's granuloma of lymph nodes of inguinal region and lower limb                                        | Diagnosis | ICD-9-CM  |
| 201.16 | Hodgkin's granuloma of intrapelvic lymph nodes                                                              | Diagnosis | ICD-9-CM  |
| 201.17 | Hodgkin's granuloma of spleen                                                                               | Diagnosis | ICD-9-CM  |
| 201.18 | Hodgkin's granuloma of lymph nodes of multiple sites                                                        | Diagnosis | ICD-9-CM  |
| 201.2  | Hodgkin's sarcoma                                                                                           | Diagnosis | ICD-9-CM  |
| 201.20 | Hodgkin's sarcoma, unspecified site, extranodal and solid organ sites                                       | Diagnosis | ICD-9-CM  |
| 201.21 | Hodgkin's sarcoma of lymph nodes of head, face, and neck                                                    | Diagnosis | ICD-9-CM  |
| 201.22 | Hodgkin's sarcoma of intrathoracic lymph nodes                                                              | Diagnosis | ICD-9-CM  |
| 201.23 | Hodgkin's sarcoma of intra-abdominal lymph nodes                                                            | Diagnosis | ICD-9-CM  |
| 201.24 | Hodgkin's sarcoma of lymph nodes of axilla and upper limb                                                   | Diagnosis | ICD-9-CM  |
| 201.25 | Hodgkin's sarcoma of lymph nodes of inguinal region and lower limb                                          | Diagnosis | ICD-9-CM  |
| 201.26 | Hodgkin's sarcoma of intrapelvic lymph nodes                                                                | Diagnosis | ICD-9-CM  |
| 201.27 | Hodgkin's sarcoma of spleen                                                                                 | Diagnosis | ICD-9-CM  |
| 201.28 | Hodgkin's sarcoma of lymph nodes of multiple sites                                                          | Diagnosis | ICD-9-CM  |
| 201.4  | Hodgkin's disease, lymphocytic-histiocytic predominance                                                     | Diagnosis | ICD-9-CM  |
| 201.40 | Hodgkin's disease, lymphocytic-histiocytic predominance, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                              | Code Category | Code Type |
|--------|----------------------------------------------------------------------------------------------------------|---------------|-----------|
| 201.41 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of head, face, and neck           | Diagnosis     | ICD-9-CM  |
| 201.42 | Hodgkin's disease, lymphocytic-histiocytic predominance of intrathoracic lymph nodes                     | Diagnosis     | ICD-9-CM  |
| 201.43 | Hodgkin's disease, lymphocytic-histiocytic predominance of intra-abdominal lymph nodes                   | Diagnosis     | ICD-9-CM  |
| 201.44 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of axilla and upper limb          | Diagnosis     | ICD-9-CM  |
| 201.45 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of inguinal region and lower limb | Diagnosis     | ICD-9-CM  |
| 201.46 | Hodgkin's disease, lymphocytic-histiocytic predominance of intrapelvic lymph nodes                       | Diagnosis     | ICD-9-CM  |
| 201.47 | Hodgkin's disease, lymphocytic-histiocytic predominance of spleen                                        | Diagnosis     | ICD-9-CM  |
| 201.48 | Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of multiple sites                 | Diagnosis     | ICD-9-CM  |
| 201.5  | Hodgkin's disease, nodular sclerosis                                                                     | Diagnosis     | ICD-9-CM  |
| 201.50 | Hodgkin's disease, nodular sclerosis, unspecified site, extranodal and solid organ sites                 | Diagnosis     | ICD-9-CM  |
| 201.51 | Hodgkin's disease, nodular sclerosis, of lymph nodes of head, face, and neck                             | Diagnosis     | ICD-9-CM  |
| 201.52 | Hodgkin's disease, nodular sclerosis, of intrathoracic lymph nodes                                       | Diagnosis     | ICD-9-CM  |
| 201.53 | Hodgkin's disease, nodular sclerosis, of intra-abdominal lymph nodes                                     | Diagnosis     | ICD-9-CM  |
| 201.54 | Hodgkin's disease, nodular sclerosis, of lymph nodes of axilla and upper limb                            | Diagnosis     | ICD-9-CM  |
| 201.55 | Hodgkin's disease, nodular sclerosis, of lymph nodes of inguinal region and lower limb                   | Diagnosis     | ICD-9-CM  |
| 201.56 | Hodgkin's disease, nodular sclerosis, of intrapelvic lymph nodes                                         | Diagnosis     | ICD-9-CM  |
| 201.57 | Hodgkin's disease, nodular sclerosis, of spleen                                                          | Diagnosis     | ICD-9-CM  |
| 201.58 | Hodgkin's disease, nodular sclerosis, of lymph nodes of multiple sites                                   | Diagnosis     | ICD-9-CM  |
| 201.6  | Hodgkin's disease, mixed cellularity                                                                     | Diagnosis     | ICD-9-CM  |
| 201.60 | Hodgkin's disease, mixed cellularity, unspecified site, extranodal and solid organ sites                 | Diagnosis     | ICD-9-CM  |
| 201.61 | Hodgkin's disease, mixed cellularity, involving lymph nodes of head, face, and neck                      | Diagnosis     | ICD-9-CM  |
| 201.62 | Hodgkin's disease, mixed cellularity, of intrathoracic lymph nodes                                       | Diagnosis     | ICD-9-CM  |
| 201.63 | Hodgkin's disease, mixed cellularity, of intra-abdominal lymph nodes                                     | Diagnosis     | ICD-9-CM  |
| 201.64 | Hodgkin's disease, mixed cellularity, of lymph nodes of axilla and upper limb                            | Diagnosis     | ICD-9-CM  |
| 201.65 | Hodgkin's disease, mixed cellularity, of lymph nodes of inguinal region and lower limb                   | Diagnosis     | ICD-9-CM  |
| 201.66 | Hodgkin's disease, mixed cellularity, of intrapelvic lymph nodes                                         | Diagnosis     | ICD-9-CM  |
| 201.67 | Hodgkin's disease, mixed cellularity, of spleen                                                          | Diagnosis     | ICD-9-CM  |
| 201.68 | Hodgkin's disease, mixed cellularity, of lymph nodes of multiple sites                                   | Diagnosis     | ICD-9-CM  |
| 201.7  | Hodgkin's disease, lymphocytic depletion                                                                 | Diagnosis     | ICD-9-CM  |
| 201.70 | Hodgkin's disease, lymphocytic depletion, unspecified site, extranodal and solid organ                   | Diagnosis     | ICD-9-CM  |
| 201.71 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of head, face, and neck                         | Diagnosis     | ICD-9-CM  |
| 201.72 | Hodgkin's disease, lymphocytic depletion, of intrathoracic lymph nodes                                   | Diagnosis     | ICD-9-CM  |
| 201.73 | Hodgkin's disease, lymphocytic depletion, of intra-abdominal lymph nodes                                 | Diagnosis     | ICD-9-CM  |
| 201.74 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of axilla and upper limb                        | Diagnosis     | ICD-9-CM  |
| 201.75 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of inguinal region and lower limb               | Diagnosis     | ICD-9-CM  |
| 201.76 | Hodgkin's disease, lymphocytic depletion, of intrapelvic lymph nodes                                     | Diagnosis     | ICD-9-CM  |
| 201.77 | Hodgkin's disease, lymphocytic depletion, of spleen                                                      | Diagnosis     | ICD-9-CM  |
| 201.78 | Hodgkin's disease, lymphocytic depletion, of lymph nodes of multiple sites                               | Diagnosis     | ICD-9-CM  |
| 201.9  | Hodgkin's disease, unspecified type                                                                      | Diagnosis     | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                             | Code      | Code Type |
|--------|-----------------------------------------------------------------------------------------|-----------|-----------|
| 201.90 | Hodgkin's disease, unspecified type, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 201.91 | Hodgkin's disease, unspecified type, of lymph nodes of head, face, and neck             | Diagnosis | ICD-9-CM  |
| 201.92 | Hodgkin's disease, unspecified type, of intrathoracic lymph nodes                       | Diagnosis | ICD-9-CM  |
| 201.93 | Hodgkin's disease, unspecified type, of intra-abdominal lymph nodes                     | Diagnosis | ICD-9-CM  |
| 201.94 | Hodgkin's disease, unspecified type, of lymph nodes of axilla and upper limb            | Diagnosis | ICD-9-CM  |
| 201.95 | Hodgkin's disease, unspecified type, of lymph nodes of inguinal region and lower limb   | Diagnosis | ICD-9-CM  |
| 201.96 | Hodgkin's disease, unspecified type, of intrapelvic lymph nodes                         | Diagnosis | ICD-9-CM  |
| 201.97 | Hodgkin's disease, unspecified type, of spleen                                          | Diagnosis | ICD-9-CM  |
| 201.98 | Hodgkin's disease, unspecified type, of lymph nodes of multiple sites                   | Diagnosis | ICD-9-CM  |
| 202    | Other malignant neoplasms of lymphoid and histiocytic tissue                            | Diagnosis | ICD-9-CM  |
| 202.0  | Nodular lymphoma                                                                        | Diagnosis | ICD-9-CM  |
| 202.00 | Nodular lymphoma, unspecified site, extranodal and solid organ sites                    | Diagnosis | ICD-9-CM  |
| 202.01 | Nodular lymphoma of lymph nodes of head, face, and neck                                 | Diagnosis | ICD-9-CM  |
| 202.02 | Nodular lymphoma of intrathoracic lymph nodes                                           | Diagnosis | ICD-9-CM  |
| 202.03 | Nodular lymphoma of intra-abdominal lymph nodes                                         | Diagnosis | ICD-9-CM  |
| 202.04 | Nodular lymphoma of lymph nodes of axilla and upper limb                                | Diagnosis | ICD-9-CM  |
| 202.05 | Nodular lymphoma of lymph nodes of inguinal region and lower limb                       | Diagnosis | ICD-9-CM  |
| 202.06 | Nodular lymphoma of intrapelvic lymph nodes                                             | Diagnosis | ICD-9-CM  |
| 202.07 | Nodular lymphoma of spleen                                                              | Diagnosis | ICD-9-CM  |
| 202.08 | Nodular lymphoma of lymph nodes of multiple sites                                       | Diagnosis | ICD-9-CM  |
| 202.1  | Mycosis fungoides                                                                       | Diagnosis | ICD-9-CM  |
| 202.10 | Mycosis fungoides, unspecified site, extranodal and solid organ sites                   | Diagnosis | ICD-9-CM  |
| 202.11 | Mycosis fungoides of lymph nodes of head, face, and neck                                | Diagnosis | ICD-9-CM  |
| 202.12 | Mycosis fungoides of intrathoracic lymph nodes                                          | Diagnosis | ICD-9-CM  |
| 202.13 | Mycosis fungoides of intra-abdominal lymph nodes                                        | Diagnosis | ICD-9-CM  |
| 202.14 | Mycosis fungoides of lymph nodes of axilla and upper limb                               | Diagnosis | ICD-9-CM  |
| 202.15 | Mycosis fungoides of lymph nodes of inguinal region and lower limb                      | Diagnosis | ICD-9-CM  |
| 202.16 | Mycosis fungoides of intrapelvic lymph nodes                                            | Diagnosis | ICD-9-CM  |
| 202.17 | Mycosis fungoides of spleen                                                             | Diagnosis | ICD-9-CM  |
| 202.18 | Mycosis fungoides of lymph nodes of multiple sites                                      | Diagnosis | ICD-9-CM  |
| 202.2  | Sezary's disease                                                                        | Diagnosis | ICD-9-CM  |
| 202.20 | Sezary's disease, unspecified site, extranodal and solid organ sites                    | Diagnosis | ICD-9-CM  |
| 202.21 | Sezary's disease of lymph nodes of head, face, and neck                                 | Diagnosis | ICD-9-CM  |
| 202.22 | Sezary's disease of intrathoracic lymph nodes                                           | Diagnosis | ICD-9-CM  |
| 202.23 | Sezary's disease of intra-abdominal lymph nodes                                         | Diagnosis | ICD-9-CM  |
| 202.24 | Sezary's disease of lymph nodes of axilla and upper limb                                | Diagnosis | ICD-9-CM  |
| 202.25 | Sezary's disease of lymph nodes of inguinal region and lower limb                       | Diagnosis | ICD-9-CM  |
| 202.26 | Sezary's disease of intrapelvic lymph nodes                                             | Diagnosis | ICD-9-CM  |
| 202.27 | Sezary's disease of spleen                                                              | Diagnosis | ICD-9-CM  |
| 202.28 | Sezary's disease of lymph nodes of multiple sites                                       | Diagnosis | ICD-9-CM  |
| 202.3  | Malignant histiocytosis                                                                 | Diagnosis | ICD-9-CM  |
| 202.30 | Malignant histiocytosis, unspecified site, extranodal and solid organ sites             | Diagnosis | ICD-9-CM  |
| 202.31 | Malignant histiocytosis of lymph nodes of head, face, and neck                          | Diagnosis | ICD-9-CM  |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                        | Code      |           |
|--------|------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                    | Category  | Code Type |
| 202.32 | Malignant histiocytosis of intrathoracic lymph nodes                               | Diagnosis | ICD-9-CM  |
| 202.33 | Malignant histiocytosis of intra-abdominal lymph nodes                             | Diagnosis | ICD-9-CM  |
| 202.34 | Malignant histiocytosis of lymph nodes of axilla and upper limb                    | Diagnosis | ICD-9-CM  |
| 202.35 | Malignant histiocytosis of lymph nodes of inguinal region and lower limb           | Diagnosis | ICD-9-CM  |
| 202.36 | Malignant histiocytosis of intrapelvic lymph nodes                                 | Diagnosis | ICD-9-CM  |
| 202.37 | Malignant histiocytosis of spleen                                                  | Diagnosis | ICD-9-CM  |
| 202.38 | Malignant histiocytosis of lymph nodes of multiple sites                           | Diagnosis | ICD-9-CM  |
| 202.4  | Leukemic reticuloendotheliosis                                                     | Diagnosis | ICD-9-CM  |
| 202.40 | Leukemic reticuloendotheliosis, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 202.41 | Leukemic reticuloendotheliosis of lymph nodes of head, face, and neck              | Diagnosis | ICD-9-CM  |
| 202.42 | Leukemic reticuloendotheliosis of intrathoracic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 202.43 | Leukemic reticuloendotheliosis of intra-abdominal lymph nodes                      | Diagnosis | ICD-9-CM  |
| 202.44 | Leukemic reticuloendotheliosis of lymph nodes of axilla and upper limb             | Diagnosis | ICD-9-CM  |
| 202.45 | Leukemic reticuloendotheliosis of lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-9-CM  |
| 202.46 | Leukemic reticuloendotheliosis of intrapelvic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 202.47 | Leukemic reticuloendotheliosis of spleen                                           | Diagnosis | ICD-9-CM  |
| 202.48 | Leukemic reticuloendotheliosis of lymph nodes of multiple sites                    | Diagnosis | ICD-9-CM  |
| 202.5  | Letterer-Siwe disease                                                              | Diagnosis | ICD-9-CM  |
| 202.50 | Letterer-Siwe disease, unspecified site, extranodal and solid organ sites          | Diagnosis | ICD-9-CM  |
| 202.51 | Letterer-Siwe disease of lymph nodes of head, face, and neck                       | Diagnosis | ICD-9-CM  |
| 202.52 | Letterer-Siwe disease of intrathoracic lymph nodes                                 | Diagnosis | ICD-9-CM  |
| 202.53 | Letterer-Siwe disease of intra-abdominal lymph nodes                               | Diagnosis | ICD-9-CM  |
| 202.54 | Letterer-Siwe disease of lymph nodes of axilla and upper limb                      | Diagnosis | ICD-9-CM  |
| 202.55 | Letterer-Siwe disease of lymph nodes of inguinal region and lower limb             | Diagnosis | ICD-9-CM  |
| 202.56 | Letterer-Siwe disease of intrapelvic lymph nodes                                   | Diagnosis | ICD-9-CM  |
| 202.57 | Letterer-Siwe disease of spleen                                                    | Diagnosis | ICD-9-CM  |
| 202.58 | Letterer-Siwe disease of lymph nodes of multiple sites                             | Diagnosis | ICD-9-CM  |
| 202.6  | Malignant mast cell tumors                                                         | Diagnosis | ICD-9-CM  |
| 202.60 | Malignant mast cell tumors, unspecified site, extranodal and solid organ sites     | Diagnosis | ICD-9-CM  |
| 202.61 | Malignant mast cell tumors of lymph nodes of head, face, and neck                  | Diagnosis | ICD-9-CM  |
| 202.62 | Malignant mast cell tumors of intrathoracic lymph nodes                            | Diagnosis | ICD-9-CM  |
| 202.63 | Malignant mast cell tumors of intra-abdominal lymph nodes                          | Diagnosis | ICD-9-CM  |
| 202.64 | Malignant mast cell tumors of lymph nodes of axilla and upper limb                 | Diagnosis | ICD-9-CM  |
| 202.65 | Malignant mast cell tumors of lymph nodes of inguinal region and lower limb        | Diagnosis | ICD-9-CM  |
| 202.66 | Malignant mast cell tumors of intrapelvic lymph nodes                              | Diagnosis | ICD-9-CM  |
| 202.67 | Malignant mast cell tumors of spleen                                               | Diagnosis | ICD-9-CM  |
| 202.68 | Malignant mast cell tumors of lymph nodes of multiple sites                        | Diagnosis | ICD-9-CM  |
| 202.7  | Peripheral T-cell lymphoma                                                         | Diagnosis | ICD-9-CM  |
| 202.70 | Peripheral T-cell lymphoma, unspecified site, extranodal and solid organ sites     | Diagnosis | ICD-9-CM  |
| 202.71 | Peripheral T-cell lymphoma, lymph nodes of head, face, and neck                    | Diagnosis | ICD-9-CM  |
| 202.72 | Peripheral T-cell lymphoma, intrathoracic lymph nodes                              | Diagnosis | ICD-9-CM  |
| 202.73 | Peripheral T-cell lymphoma, intra-abdominal lymph nodes                            | Diagnosis | ICD-9-CM  |
| 202.74 | Peripheral T-cell lymphoma, lymph nodes of axilla and upper limb                   | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                                                      | Code      |           |
|--------|----------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                                                  | Category  | Code Type |
| 202.75 | Peripheral T-cell lymphoma, lymph nodes of inguinal region and lower limb                                                        | Diagnosis | ICD-9-CM  |
| 202.76 | Peripheral T-cell lymphoma, intrapelvic lymph nodes                                                                              | Diagnosis | ICD-9-CM  |
| 202.77 | Peripheral T-cell lymphoma, spleen                                                                                               | Diagnosis | ICD-9-CM  |
| 202.78 | Peripheral T-cell lymphoma, lymph nodes of multiple sites                                                                        | Diagnosis | ICD-9-CM  |
| 202.8  | Other malignant lymphomas                                                                                                        | Diagnosis | ICD-9-CM  |
| 202.80 | Other malignant lymphomas, unspecified site, extranodal and solid organ sites                                                    | Diagnosis | ICD-9-CM  |
| 202.81 | Other malignant lymphomas of lymph nodes of head, face, and neck                                                                 | Diagnosis | ICD-9-CM  |
| 202.82 | Other malignant lymphomas of intrathoracic lymph nodes                                                                           | Diagnosis | ICD-9-CM  |
| 202.83 | Other malignant lymphomas of intra-abdominal lymph nodes                                                                         | Diagnosis | ICD-9-CM  |
| 202.84 | Other malignant lymphomas of lymph nodes of axilla and upper limb                                                                | Diagnosis | ICD-9-CM  |
| 202.85 | Other malignant lymphomas of lymph nodes of inguinal region and lower limb                                                       | Diagnosis | ICD-9-CM  |
| 202.86 | Other malignant lymphomas of intrapelvic lymph nodes                                                                             | Diagnosis | ICD-9-CM  |
| 202.87 | Other malignant lymphomas of spleen                                                                                              | Diagnosis | ICD-9-CM  |
| 202.88 | Other malignant lymphomas of lymph nodes of multiple sites                                                                       | Diagnosis | ICD-9-CM  |
| 202.9  | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue                                                     | Diagnosis | ICD-9-CM  |
| 202.90 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue, unspecified site, extranodal and solid organ sites | Diagnosis | ICD-9-CM  |
| 202.91 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of head, face, and neck              | Diagnosis | ICD-9-CM  |
| 202.92 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrathoracic lymph nodes                        | Diagnosis | ICD-9-CM  |
| 202.93 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intra-abdominal lymph nodes                      | Diagnosis | ICD-9-CM  |
| 202.94 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of axilla and upper limb             | Diagnosis | ICD-9-CM  |
| 202.95 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-9-CM  |
| 202.96 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrapelvic lymph nodes                          | Diagnosis | ICD-9-CM  |
| 202.97 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of spleen                                           | Diagnosis | ICD-9-CM  |
| 202.98 | Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of multiple sites                    | Diagnosis | ICD-9-CM  |
| 203    | Multiple myeloma and immunoproliferative neoplasms                                                                               | Diagnosis | ICD-9-CM  |
| 203.0  | Multiple myeloma                                                                                                                 | Diagnosis | ICD-9-CM  |
| 203.00 | Multiple myeloma, without mention of having achieved remission                                                                   | Diagnosis | ICD-9-CM  |
| 203.01 | Multiple myeloma in remission                                                                                                    | Diagnosis | ICD-9-CM  |
| 203.02 | Multiple myeloma, in relapse                                                                                                     | Diagnosis | ICD-9-CM  |
| 203.1  | Plasma cell leukemia                                                                                                             | Diagnosis | ICD-9-CM  |
| 203.10 | Plasma cell leukemia, without mention of having achieved remission                                                               | Diagnosis | ICD-9-CM  |
| 203.11 | Plasma cell leukemia in remission                                                                                                | Diagnosis | ICD-9-CM  |
| 203.12 | Plasma cell leukemia, in relapse                                                                                                 | Diagnosis | ICD-9-CM  |
| 203.8  | Other immunoproliferative neoplasms                                                                                              | Diagnosis | ICD-9-CM  |
| 203.80 | Other immunoproliferative neoplasms, without mention of having achieved remission                                                | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                 | Code      |           |
|--------|-----------------------------------------------------------------------------|-----------|-----------|
|        |                                                                             | Category  | Code Type |
| 203.81 | Other immunoproliferative neoplasms in remission                            | Diagnosis | ICD-9-CM  |
| 203.82 | Other immunoproliferative neoplasms, in relapse                             | Diagnosis | ICD-9-CM  |
| 204    | Lymphoid leukemia                                                           | Diagnosis | ICD-9-CM  |
| 204.0  | Acute lymphoid leukemia                                                     | Diagnosis | ICD-9-CM  |
| 204.00 | Acute lymphoid leukemia, without mention of having achieved remission       | Diagnosis | ICD-9-CM  |
| 204.01 | Acute lymphoid leukemia in remission                                        | Diagnosis | ICD-9-CM  |
| 204.02 | Acute lymphoid leukemia, in relapse                                         | Diagnosis | ICD-9-CM  |
| 204.1  | Chronic lymphoid leukemia                                                   | Diagnosis | ICD-9-CM  |
| 204.10 | Chronic lymphoid leukemia, without mention of having achieved remission     | Diagnosis | ICD-9-CM  |
| 204.11 | Chronic lymphoid leukemia in remission                                      | Diagnosis | ICD-9-CM  |
| 204.12 | Chronic lymphoid leukemia, in relapse                                       | Diagnosis | ICD-9-CM  |
| 204.2  | Subacute lymphoid leukemia                                                  | Diagnosis | ICD-9-CM  |
| 204.20 | Subacute lymphoid leukemia, without mention of having achieved remission    | Diagnosis | ICD-9-CM  |
| 204.21 | Subacute lymphoid leukemia in remission                                     | Diagnosis | ICD-9-CM  |
| 204.22 | Subacute lymphoid leukemia, in relapse                                      | Diagnosis | ICD-9-CM  |
| 204.8  | Other lymphoid leukemia                                                     | Diagnosis | ICD-9-CM  |
| 204.80 | Other lymphoid leukemia, without mention of having achieved remission       | Diagnosis | ICD-9-CM  |
| 204.81 | Other lymphoid leukemia in remission                                        | Diagnosis | ICD-9-CM  |
| 204.82 | Other lymphoid leukemia, in relapse                                         | Diagnosis | ICD-9-CM  |
| 204.9  | Unspecified lymphoid leukemia                                               | Diagnosis | ICD-9-CM  |
| 204.90 | Unspecified lymphoid leukemia, without mention of having achieved remission | Diagnosis | ICD-9-CM  |
| 204.91 | Unspecified lymphoid leukemia in remission                                  | Diagnosis | ICD-9-CM  |
| 204.92 | Unspecified lymphoid leukemia, in relapse                                   | Diagnosis | ICD-9-CM  |
| 205    | Myeloid leukemia                                                            | Diagnosis | ICD-9-CM  |
| 205.0  | Acute myeloid leukemia                                                      | Diagnosis | ICD-9-CM  |
| 205.00 | Acute myeloid leukemia, without mention of having achieved remission        | Diagnosis | ICD-9-CM  |
| 205.01 | Acute myeloid leukemia in remission                                         | Diagnosis | ICD-9-CM  |
| 205.02 | Acute myeloid leukemia, in relapse                                          | Diagnosis | ICD-9-CM  |
| 205.1  | Chronic myeloid leukemia                                                    | Diagnosis | ICD-9-CM  |
| 205.10 | Chronic myeloid leukemia, without mention of having achieved remission      | Diagnosis | ICD-9-CM  |
| 205.11 | Chronic myeloid leukemia in remission                                       | Diagnosis | ICD-9-CM  |
| 205.12 | Chronic myeloid leukemia, in relapse                                        | Diagnosis | ICD-9-CM  |
| 205.2  | Subacute myeloid leukemia                                                   | Diagnosis | ICD-9-CM  |
| 205.20 | Subacute myeloid leukemia, without mention of having achieved remission     | Diagnosis | ICD-9-CM  |
| 205.21 | Subacute myeloid leukemia in remission                                      | Diagnosis | ICD-9-CM  |
| 205.22 | Subacute myeloid leukemia, in relapse                                       | Diagnosis | ICD-9-CM  |
| 205.3  | Myeloid sarcoma                                                             | Diagnosis | ICD-9-CM  |
| 205.30 | Myeloid sarcoma, without mention of having achieved remission               | Diagnosis | ICD-9-CM  |
| 205.31 | Myeloid sarcoma in remission                                                | Diagnosis | ICD-9-CM  |
| 205.32 | Myeloid sarcoma, in relapse                                                 | Diagnosis | ICD-9-CM  |
| 205.8  | Other myeloid leukemia                                                      | Diagnosis | ICD-9-CM  |
| 205.80 | Other myeloid leukemia, without mention of having achieved remission        | Diagnosis | ICD-9-CM  |
| 205.81 | Other myeloid leukemia in remission                                         | Diagnosis | ICD-9-CM  |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                        | Code      |           |
|--------|------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                    | Category  | Code Type |
| 205.82 | Other myeloid leukemia, in relapse                                                 | Diagnosis | ICD-9-CM  |
| 205.9  | Unspecified myeloid leukemia                                                       | Diagnosis | ICD-9-CM  |
| 205.90 | Unspecified myeloid leukemia, without mention of having achieved remission         | Diagnosis | ICD-9-CM  |
| 205.91 | Unspecified myeloid leukemia in remission                                          | Diagnosis | ICD-9-CM  |
| 205.92 | Unspecified myeloid leukemia, in relapse                                           | Diagnosis | ICD-9-CM  |
| 206    | Monocytic leukemia                                                                 | Diagnosis | ICD-9-CM  |
| 206.0  | Acute monocytic leukemia                                                           | Diagnosis | ICD-9-CM  |
| 206.00 | Acute monocytic leukemia, without mention of having achieved remission             | Diagnosis | ICD-9-CM  |
| 206.01 | Acute monocytic leukemia in remission                                              | Diagnosis | ICD-9-CM  |
| 206.02 | Acute monocytic leukemia, in relapse                                               | Diagnosis | ICD-9-CM  |
| 206.1  | Chronic monocytic leukemia                                                         | Diagnosis | ICD-9-CM  |
| 206.10 | Chronic monocytic leukemia, without mention of having achieved remission           | Diagnosis | ICD-9-CM  |
| 206.11 | Chronic monocytic leukemia in remission                                            | Diagnosis | ICD-9-CM  |
| 206.12 | Chronic monocytic leukemia, in relapse                                             | Diagnosis | ICD-9-CM  |
| 206.2  | Subacute monocytic leukemia                                                        | Diagnosis | ICD-9-CM  |
| 206.20 | Subacute monocytic leukemia, without mention of having achieved remission          | Diagnosis | ICD-9-CM  |
| 206.21 | Subacute monocytic leukemia in remission                                           | Diagnosis | ICD-9-CM  |
| 206.22 | Subacute monocytic leukemia, in relapse                                            | Diagnosis | ICD-9-CM  |
| 206.8  | Other monocytic leukemia                                                           | Diagnosis | ICD-9-CM  |
| 206.80 | Other monocytic leukemia, without mention of having achieved remission             | Diagnosis | ICD-9-CM  |
| 206.81 | Other monocytic leukemia in remission                                              | Diagnosis | ICD-9-CM  |
| 206.82 | Other monocytic leukemia, in relapse                                               | Diagnosis | ICD-9-CM  |
| 206.9  | Unspecified monocytic leukemia                                                     | Diagnosis | ICD-9-CM  |
| 206.90 | Unspecified monocytic leukemia, without mention of having achieved remission       | Diagnosis | ICD-9-CM  |
| 206.91 | Unspecified monocytic leukemia in remission                                        | Diagnosis | ICD-9-CM  |
| 206.92 | Unspecified monocytic leukemia, in relapse                                         | Diagnosis | ICD-9-CM  |
| 207    | Other specified leukemia                                                           | Diagnosis | ICD-9-CM  |
| 207.0  | Acute erythremia and erythroleukemia                                               | Diagnosis | ICD-9-CM  |
| 207.00 | Acute erythremia and erythroleukemia, without mention of having achieved remission | Diagnosis | ICD-9-CM  |
| 207.01 | Acute erythremia and erythroleukemia in remission                                  | Diagnosis | ICD-9-CM  |
| 207.02 | Acute erythremia and erythroleukemia, in relapse                                   | Diagnosis | ICD-9-CM  |
| 207.1  | Chronic erythremia                                                                 | Diagnosis | ICD-9-CM  |
| 207.10 | Chronic erythremia, without mention of having achieved remission                   | Diagnosis | ICD-9-CM  |
| 207.11 | Chronic erythremia in remission                                                    | Diagnosis | ICD-9-CM  |
| 207.12 | Chronic erythremia, in relapse                                                     | Diagnosis | ICD-9-CM  |
| 207.2  | Megakaryocytic leukemia                                                            | Diagnosis | ICD-9-CM  |
| 207.20 | Megakaryocytic leukemia, without mention of having achieved remission              | Diagnosis | ICD-9-CM  |
| 207.21 | Megakaryocytic leukemia in remission                                               | Diagnosis | ICD-9-CM  |
| 207.22 | Megakaryocytic leukemia, in relapse                                                | Diagnosis | ICD-9-CM  |
| 207.8  | Other specified leukemia                                                           | Diagnosis | ICD-9-CM  |
| 207.80 | Other specified leukemia, without mention of having achieved remission             | Diagnosis | ICD-9-CM  |
| 207.81 | Other specified leukemia in remission                                              | Diagnosis | ICD-9-CM  |
| 207.82 | Other specified leukemia, in relapse                                               | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                              | Code      |           |
|--------|------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                          | Category  | Code Type |
| 208    | Leukemia of unspecified cell type                                                        | Diagnosis | ICD-9-CM  |
| 208.0  | Acute leukemia of unspecified cell type                                                  | Diagnosis | ICD-9-CM  |
| 208.00 | Acute leukemia of unspecified cell type, without mention of having achieved remission    | Diagnosis | ICD-9-CM  |
| 208.01 | Acute leukemia of unspecified cell type in remission                                     | Diagnosis | ICD-9-CM  |
| 208.02 | Acute leukemia of unspecified cell type, in relapse                                      | Diagnosis | ICD-9-CM  |
| 208.1  | Chronic leukemia of unspecified cell type                                                | Diagnosis | ICD-9-CM  |
| 208.10 | Chronic leukemia of unspecified cell type, without mention of having achieved remission  | Diagnosis | ICD-9-CM  |
| 208.11 | Chronic leukemia of unspecified cell type in remission                                   | Diagnosis | ICD-9-CM  |
| 208.12 | Chronic leukemia of unspecified cell type, in relapse                                    | Diagnosis | ICD-9-CM  |
| 208.2  | Subacute leukemia of unspecified cell type                                               | Diagnosis | ICD-9-CM  |
| 208.20 | Subacute leukemia of unspecified cell type, without mention of having achieved remission | Diagnosis | ICD-9-CM  |
| 208.21 | Subacute leukemia of unspecified cell type in remission                                  | Diagnosis | ICD-9-CM  |
| 208.22 | Subacute leukemia of unspecified cell type, in relapse                                   | Diagnosis | ICD-9-CM  |
| 208.8  | Other leukemia of unspecified cell type                                                  | Diagnosis | ICD-9-CM  |
| 208.80 | Other leukemia of unspecified cell type, without mention of having achieved remission    | Diagnosis | ICD-9-CM  |
| 208.81 | Other leukemia of unspecified cell type in remission                                     | Diagnosis | ICD-9-CM  |
| 208.82 | Other leukemia of unspecified cell type, in relapse                                      | Diagnosis | ICD-9-CM  |
| 208.9  | Unspecified leukemia                                                                     | Diagnosis | ICD-9-CM  |
| 208.90 | Unspecified leukemia, without mention of having achieved remission                       | Diagnosis | ICD-9-CM  |
| 208.91 | Unspecified leukemia in remission                                                        | Diagnosis | ICD-9-CM  |
| 208.92 | Unspecified leukemia, in relapse                                                         | Diagnosis | ICD-9-CM  |
| 209    | Neuroendocrine tumors                                                                    | Diagnosis | ICD-9-CM  |
| 209.0  | Malignant carcinoid tumors of the small intestine                                        | Diagnosis | ICD-9-CM  |
| 209.00 | Malignant carcinoid tumor of the small intestine, unspecified portion                    | Diagnosis | ICD-9-CM  |
| 209.01 | Malignant carcinoid tumor of the duodenum                                                | Diagnosis | ICD-9-CM  |
| 209.02 | Malignant carcinoid tumor of the jejunum                                                 | Diagnosis | ICD-9-CM  |
| 209.03 | Malignant carcinoid tumor of the ileum                                                   | Diagnosis | ICD-9-CM  |
| 209.1  | Malignant carcinoid tumors of the appendix, large intestine, and rectum                  | Diagnosis | ICD-9-CM  |
| 209.10 | Malignant carcinoid tumor of the large intestine, unspecified portion                    | Diagnosis | ICD-9-CM  |
| 209.11 | Malignant carcinoid tumor of the appendix                                                | Diagnosis | ICD-9-CM  |
| 209.12 | Malignant carcinoid tumor of the cecum                                                   | Diagnosis | ICD-9-CM  |
| 209.13 | Malignant carcinoid tumor of the ascending colon                                         | Diagnosis | ICD-9-CM  |
| 209.14 | Malignant carcinoid tumor of the transverse colon                                        | Diagnosis | ICD-9-CM  |
| 209.15 | Malignant carcinoid tumor of the descending colon                                        | Diagnosis | ICD-9-CM  |
| 209.16 | Malignant carcinoid tumor of the sigmoid colon                                           | Diagnosis | ICD-9-CM  |
| 209.17 | Malignant carcinoid tumor of the rectum                                                  | Diagnosis | ICD-9-CM  |
| 209.2  | Malignant carcinoid tumors of other and unspecified sites                                | Diagnosis | ICD-9-CM  |
| 209.20 | Malignant carcinoid tumor of unknown primary site                                        | Diagnosis | ICD-9-CM  |
| 209.21 | Malignant carcinoid tumor of the bronchus and lung                                       | Diagnosis | ICD-9-CM  |
| 209.22 | Malignant carcinoid tumor of the thymus                                                  | Diagnosis | ICD-9-CM  |
| 209.23 | Malignant carcinoid tumor of the stomach                                                 | Diagnosis | ICD-9-CM  |
| 209.24 | Malignant carcinoid tumor of the kidney                                                  | Diagnosis | ICD-9-CM  |
| 209.25 | Malignant carcinoid tumor of foregut, not otherwise specified                            | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                           | Code      |           |
|--------|-----------------------------------------------------------------------|-----------|-----------|
|        |                                                                       | Category  | Code Type |
| 209.26 | Malignant carcinoid tumor of midgut, not otherwise specified          | Diagnosis | ICD-9-CM  |
| 209.27 | Malignant carcinoid tumor of hindgut, not otherwise specified         | Diagnosis | ICD-9-CM  |
| 209.29 | Malignant carcinoid tumor of other sites                              | Diagnosis | ICD-9-CM  |
| 209.3  | Malignant poorly differentiated neuroendocrine tumors                 | Diagnosis | ICD-9-CM  |
| 209.30 | Malignant poorly differentiated neuroendocrine carcinoma, any site    | Diagnosis | ICD-9-CM  |
| 209.64 | Benign carcinoid tumor of the kidney                                  | Diagnosis | ICD-9-CM  |
| 209.7  | Secondary neuroendocrine tumors                                       | Diagnosis | ICD-9-CM  |
| 209.70 | Secondary neuroendocrine tumor, unspecified site                      | Diagnosis | ICD-9-CM  |
| 209.71 | Secondary neuroendocrine tumor of distant lymph nodes                 | Diagnosis | ICD-9-CM  |
| 209.72 | Secondary neuroendocrine tumor of liver                               | Diagnosis | ICD-9-CM  |
| 209.73 | Secondary neuroendocrine tumor of bone                                | Diagnosis | ICD-9-CM  |
| 209.74 | Secondary neuroendocrine tumor of peritoneum                          | Diagnosis | ICD-9-CM  |
| 209.79 | Secondary neuroendocrine tumor of other sites                         | Diagnosis | ICD-9-CM  |
| 223.0  | Benign neoplasm of kidney, except pelvis                              | Diagnosis | ICD-9-CM  |
| 223.1  | Benign neoplasm of renal pelvis                                       | Diagnosis | ICD-9-CM  |
| 236.91 | Neoplasm of uncertain behavior of kidney and ureter                   | Diagnosis | ICD-9-CM  |
| 273.3  | Macroglobulinemia                                                     | Diagnosis | ICD-9-CM  |
| 284.2  | Myelophthisis                                                         | Diagnosis | ICD-9-CM  |
| 289.83 | Myelofibrosis                                                         | Diagnosis | ICD-9-CM  |
| 999.81 | Extravasation of vesicant chemotherapy                                | Diagnosis | ICD-9-CM  |
| C00    | Malignant neoplasm of lip                                             | Diagnosis | ICD-10-CM |
| C00.0  | Malignant neoplasm of external upper lip                              | Diagnosis | ICD-10-CM |
| C00.1  | Malignant neoplasm of external lower lip                              | Diagnosis | ICD-10-CM |
| C00.2  | Malignant neoplasm of external lip, unspecified                       | Diagnosis | ICD-10-CM |
| C00.3  | Malignant neoplasm of upper lip, inner aspect                         | Diagnosis | ICD-10-CM |
| C00.4  | Malignant neoplasm of lower lip, inner aspect                         | Diagnosis | ICD-10-CM |
| C00.5  | Malignant neoplasm of lip, unspecified, inner aspect                  | Diagnosis | ICD-10-CM |
| C00.6  | Malignant neoplasm of commissure of lip, unspecified                  | Diagnosis | ICD-10-CM |
| C00.8  | Malignant neoplasm of overlapping sites of lip                        | Diagnosis | ICD-10-CM |
| C00.9  | Malignant neoplasm of lip, unspecified                                | Diagnosis | ICD-10-CM |
| C01    | Malignant neoplasm of base of tongue                                  | Diagnosis | ICD-10-CM |
| C02    | Malignant neoplasm of other and unspecified parts of tongue           | Diagnosis | ICD-10-CM |
| C02.0  | Malignant neoplasm of dorsal surface of tongue                        | Diagnosis | ICD-10-CM |
| C02.1  | Malignant neoplasm of border of tongue                                | Diagnosis | ICD-10-CM |
| C02.2  | Malignant neoplasm of ventral surface of tongue                       | Diagnosis | ICD-10-CM |
| C02.3  | Malignant neoplasm of anterior two-thirds of tongue, part unspecified | Diagnosis | ICD-10-CM |
| C02.4  | Malignant neoplasm of lingual tonsil                                  | Diagnosis | ICD-10-CM |
| C02.8  | Malignant neoplasm of overlapping sites of tongue                     | Diagnosis | ICD-10-CM |
| C02.9  | Malignant neoplasm of tongue, unspecified                             | Diagnosis | ICD-10-CM |
| C03    | Malignant neoplasm of gum                                             | Diagnosis | ICD-10-CM |
| C03.0  | Malignant neoplasm of upper gum                                       | Diagnosis | ICD-10-CM |
| C03.1  | Malignant neoplasm of lower gum                                       | Diagnosis | ICD-10-CM |
| C03.9  | Malignant neoplasm of gum, unspecified                                | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                     | Code      |           |
|--------|---------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                 | Category  | Code Type |
| C04    | Malignant neoplasm of floor of mouth                                            | Diagnosis | ICD-10-CM |
| C04.0  | Malignant neoplasm of anterior floor of mouth                                   | Diagnosis | ICD-10-CM |
| C04.1  | Malignant neoplasm of lateral floor of mouth                                    | Diagnosis | ICD-10-CM |
| C04.8  | Malignant neoplasm of overlapping sites of floor of mouth                       | Diagnosis | ICD-10-CM |
| C04.9  | Malignant neoplasm of floor of mouth, unspecified                               | Diagnosis | ICD-10-CM |
| C05    | Malignant neoplasm of palate                                                    | Diagnosis | ICD-10-CM |
| C05.0  | Malignant neoplasm of hard palate                                               | Diagnosis | ICD-10-CM |
| C05.1  | Malignant neoplasm of soft palate                                               | Diagnosis | ICD-10-CM |
| C05.2  | Malignant neoplasm of uvula                                                     | Diagnosis | ICD-10-CM |
| C05.8  | Malignant neoplasm of overlapping sites of palate                               | Diagnosis | ICD-10-CM |
| C05.9  | Malignant neoplasm of palate, unspecified                                       | Diagnosis | ICD-10-CM |
| C06    | Malignant neoplasm of other and unspecified parts of mouth                      | Diagnosis | ICD-10-CM |
| C06.0  | Malignant neoplasm of cheek mucosa                                              | Diagnosis | ICD-10-CM |
| C06.1  | Malignant neoplasm of vestibule of mouth                                        | Diagnosis | ICD-10-CM |
| C06.2  | Malignant neoplasm of retromolar area                                           | Diagnosis | ICD-10-CM |
| C06.8  | Malignant neoplasm of overlapping sites of other and unspecified parts of mouth | Diagnosis | ICD-10-CM |
| C06.80 | Malignant neoplasm of overlapping sites of unspecified parts of mouth           | Diagnosis | ICD-10-CM |
| C06.89 | Malignant neoplasm of overlapping sites of other parts of mouth                 | Diagnosis | ICD-10-CM |
| C06.9  | Malignant neoplasm of mouth, unspecified                                        | Diagnosis | ICD-10-CM |
| C07    | Malignant neoplasm of parotid gland                                             | Diagnosis | ICD-10-CM |
| C08    | Malignant neoplasm of other and unspecified major salivary glands               | Diagnosis | ICD-10-CM |
| C08.0  | Malignant neoplasm of submandibular gland                                       | Diagnosis | ICD-10-CM |
| C08.1  | Malignant neoplasm of sublingual gland                                          | Diagnosis | ICD-10-CM |
| C08.9  | Malignant neoplasm of major salivary gland, unspecified                         | Diagnosis | ICD-10-CM |
| C09    | Malignant neoplasm of tonsil                                                    | Diagnosis | ICD-10-CM |
| C09.0  | Malignant neoplasm of tonsillar fossa                                           | Diagnosis | ICD-10-CM |
| C09.1  | Malignant neoplasm of tonsillar pillar (anterior) (posterior)                   | Diagnosis | ICD-10-CM |
| C09.8  | Malignant neoplasm of overlapping sites of tonsil                               | Diagnosis | ICD-10-CM |
| C09.9  | Malignant neoplasm of tonsil, unspecified                                       | Diagnosis | ICD-10-CM |
| C10    | Malignant neoplasm of oropharynx                                                | Diagnosis | ICD-10-CM |
| C10.0  | Malignant neoplasm of vallecula                                                 | Diagnosis | ICD-10-CM |
| C10.1  | Malignant neoplasm of anterior surface of epiglottis                            | Diagnosis | ICD-10-CM |
| C10.2  | Malignant neoplasm of lateral wall of oropharynx                                | Diagnosis | ICD-10-CM |
| C10.3  | Malignant neoplasm of posterior wall of oropharynx                              | Diagnosis | ICD-10-CM |
| C10.4  | Malignant neoplasm of branchial cleft                                           | Diagnosis | ICD-10-CM |
| C10.8  | Malignant neoplasm of overlapping sites of oropharynx                           | Diagnosis | ICD-10-CM |
| C10.9  | Malignant neoplasm of oropharynx, unspecified                                   | Diagnosis | ICD-10-CM |
| C11    | Malignant neoplasm of nasopharynx                                               | Diagnosis | ICD-10-CM |
| C11.0  | Malignant neoplasm of superior wall of nasopharynx                              | Diagnosis | ICD-10-CM |
| C11.1  | Malignant neoplasm of posterior wall of nasopharynx                             | Diagnosis | ICD-10-CM |
| C11.2  | Malignant neoplasm of lateral wall of nasopharynx                               | Diagnosis | ICD-10-CM |
| C11.3  | Malignant neoplasm of anterior wall of nasopharynx                              | Diagnosis | ICD-10-CM |
| C11.8  | Malignant neoplasm of overlapping sites of nasopharynx                          | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                           | Code      |           |
|-------|---------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                       | Category  | Code Type |
| C11.9 | Malignant neoplasm of nasopharynx, unspecified                                        | Diagnosis | ICD-10-CM |
| C12   | Malignant neoplasm of pyriform sinus                                                  | Diagnosis | ICD-10-CM |
| C13   | Malignant neoplasm of hypopharynx                                                     | Diagnosis | ICD-10-CM |
| C13.0 | Malignant neoplasm of postcricoid region                                              | Diagnosis | ICD-10-CM |
| C13.1 | Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect                       | Diagnosis | ICD-10-CM |
| C13.2 | Malignant neoplasm of posterior wall of hypopharynx                                   | Diagnosis | ICD-10-CM |
| C13.8 | Malignant neoplasm of overlapping sites of hypopharynx                                | Diagnosis | ICD-10-CM |
| C13.9 | Malignant neoplasm of hypopharynx, unspecified                                        | Diagnosis | ICD-10-CM |
| C14   | Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx | Diagnosis | ICD-10-CM |
| C14.0 | Malignant neoplasm of pharynx, unspecified                                            | Diagnosis | ICD-10-CM |
| C14.2 | Malignant neoplasm of Waldeyer's ring                                                 | Diagnosis | ICD-10-CM |
| C14.8 | Malignant neoplasm of overlapping sites of lip, oral cavity and pharynx               | Diagnosis | ICD-10-CM |
| C15   | Malignant neoplasm of esophagus                                                       | Diagnosis | ICD-10-CM |
| C15.3 | Malignant neoplasm of upper third of esophagus                                        | Diagnosis | ICD-10-CM |
| C15.4 | Malignant neoplasm of middle third of esophagus                                       | Diagnosis | ICD-10-CM |
| C15.5 | Malignant neoplasm of lower third of esophagus                                        | Diagnosis | ICD-10-CM |
| C15.8 | Malignant neoplasm of overlapping sites of esophagus                                  | Diagnosis | ICD-10-CM |
| C15.9 | Malignant neoplasm of esophagus, unspecified                                          | Diagnosis | ICD-10-CM |
| C16   | Malignant neoplasm of stomach                                                         | Diagnosis | ICD-10-CM |
| C16.0 | Malignant neoplasm of cardia                                                          | Diagnosis | ICD-10-CM |
| C16.1 | Malignant neoplasm of fundus of stomach                                               | Diagnosis | ICD-10-CM |
| C16.2 | Malignant neoplasm of body of stomach                                                 | Diagnosis | ICD-10-CM |
| C16.3 | Malignant neoplasm of pyloric antrum                                                  | Diagnosis | ICD-10-CM |
| C16.4 | Malignant neoplasm of pylorus                                                         | Diagnosis | ICD-10-CM |
| C16.5 | Malignant neoplasm of lesser curvature of stomach, unspecified                        | Diagnosis | ICD-10-CM |
| C16.6 | Malignant neoplasm of greater curvature of stomach, unspecified                       | Diagnosis | ICD-10-CM |
| C16.8 | Malignant neoplasm of overlapping sites of stomach                                    | Diagnosis | ICD-10-CM |
| C16.9 | Malignant neoplasm of stomach, unspecified                                            | Diagnosis | ICD-10-CM |
| C17   | Malignant neoplasm of small intestine                                                 | Diagnosis | ICD-10-CM |
| C17.0 | Malignant neoplasm of duodenum                                                        | Diagnosis | ICD-10-CM |
| C17.1 | Malignant neoplasm of jejunum                                                         | Diagnosis | ICD-10-CM |
| C17.2 | Malignant neoplasm of ileum                                                           | Diagnosis | ICD-10-CM |
| C17.3 | Meckel's diverticulum, malignant                                                      | Diagnosis | ICD-10-CM |
| C17.8 | Malignant neoplasm of overlapping sites of small intestine                            | Diagnosis | ICD-10-CM |
| C17.9 | Malignant neoplasm of small intestine, unspecified                                    | Diagnosis | ICD-10-CM |
| C18   | Malignant neoplasm of colon                                                           | Diagnosis | ICD-10-CM |
| C18.0 | Malignant neoplasm of cecum                                                           | Diagnosis | ICD-10-CM |
| C18.1 | Malignant neoplasm of appendix                                                        | Diagnosis | ICD-10-CM |
| C18.2 | Malignant neoplasm of ascending colon                                                 | Diagnosis | ICD-10-CM |
| C18.3 | Malignant neoplasm of hepatic flexure                                                 | Diagnosis | ICD-10-CM |
| C18.4 | Malignant neoplasm of transverse colon                                                | Diagnosis | ICD-10-CM |
| C18.5 | Malignant neoplasm of splenic flexure                                                 | Diagnosis | ICD-10-CM |
| C18.6 | Malignant neoplasm of descending colon                                                | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                            | Code      |           |
|-------|------------------------------------------------------------------------|-----------|-----------|
|       |                                                                        | Category  | Code Type |
| C18.7 | Malignant neoplasm of sigmoid colon                                    | Diagnosis | ICD-10-CM |
| C18.8 | Malignant neoplasm of overlapping sites of colon                       | Diagnosis | ICD-10-CM |
| C18.9 | Malignant neoplasm of colon, unspecified                               | Diagnosis | ICD-10-CM |
| C19   | Malignant neoplasm of rectosigmoid junction                            | Diagnosis | ICD-10-CM |
| C20   | Malignant neoplasm of rectum                                           | Diagnosis | ICD-10-CM |
| C21   | Malignant neoplasm of anus and anal canal                              | Diagnosis | ICD-10-CM |
| C21.0 | Malignant neoplasm of anus, unspecified                                | Diagnosis | ICD-10-CM |
| C21.1 | Malignant neoplasm of anal canal                                       | Diagnosis | ICD-10-CM |
| C21.2 | Malignant neoplasm of cloacogenic zone                                 | Diagnosis | ICD-10-CM |
| C21.8 | Malignant neoplasm of overlapping sites of rectum, anus and anal canal | Diagnosis | ICD-10-CM |
| C22   | Malignant neoplasm of liver and intrahepatic bile ducts                | Diagnosis | ICD-10-CM |
| C22.0 | Liver cell carcinoma                                                   | Diagnosis | ICD-10-CM |
| C22.1 | Intrahepatic bile duct carcinoma                                       | Diagnosis | ICD-10-CM |
| C22.2 | Hepatoblastoma                                                         | Diagnosis | ICD-10-CM |
| C22.3 | Angiosarcoma of liver                                                  | Diagnosis | ICD-10-CM |
| C22.4 | Other sarcomas of liver                                                | Diagnosis | ICD-10-CM |
| C22.7 | Other specified carcinomas of liver                                    | Diagnosis | ICD-10-CM |
| C22.8 | Malignant neoplasm of liver, primary, unspecified as to type           | Diagnosis | ICD-10-CM |
| C22.9 | Malignant neoplasm of liver, not specified as primary or secondary     | Diagnosis | ICD-10-CM |
| C23   | Malignant neoplasm of gallbladder                                      | Diagnosis | ICD-10-CM |
| C24   | Malignant neoplasm of other and unspecified parts of biliary tract     | Diagnosis | ICD-10-CM |
| C24.0 | Malignant neoplasm of extrahepatic bile duct                           | Diagnosis | ICD-10-CM |
| C24.1 | Malignant neoplasm of ampulla of Vater                                 | Diagnosis | ICD-10-CM |
| C24.8 | Malignant neoplasm of overlapping sites of biliary tract               | Diagnosis | ICD-10-CM |
| C24.9 | Malignant neoplasm of biliary tract, unspecified                       | Diagnosis | ICD-10-CM |
| C25   | Malignant neoplasm of pancreas                                         | Diagnosis | ICD-10-CM |
| C25.0 | Malignant neoplasm of head of pancreas                                 | Diagnosis | ICD-10-CM |
| C25.1 | Malignant neoplasm of body of pancreas                                 | Diagnosis | ICD-10-CM |
| C25.2 | Malignant neoplasm of tail of pancreas                                 | Diagnosis | ICD-10-CM |
| C25.3 | Malignant neoplasm of pancreatic duct                                  | Diagnosis | ICD-10-CM |
| C25.4 | Malignant neoplasm of endocrine pancreas                               | Diagnosis | ICD-10-CM |
| C25.7 | Malignant neoplasm of other parts of pancreas                          | Diagnosis | ICD-10-CM |
| C25.8 | Malignant neoplasm of overlapping sites of pancreas                    | Diagnosis | ICD-10-CM |
| C25.9 | Malignant neoplasm of pancreas, unspecified                            | Diagnosis | ICD-10-CM |
| C26   | Malignant neoplasm of other and ill-defined digestive organs           | Diagnosis | ICD-10-CM |
| C26.0 | Malignant neoplasm of intestinal tract, part unspecified               | Diagnosis | ICD-10-CM |
| C26.1 | Malignant neoplasm of spleen                                           | Diagnosis | ICD-10-CM |
| C26.9 | Malignant neoplasm of ill-defined sites within the digestive system    | Diagnosis | ICD-10-CM |
| C30   | Malignant neoplasm of nasal cavity and middle ear                      | Diagnosis | ICD-10-CM |
| C30.0 | Malignant neoplasm of nasal cavity                                     | Diagnosis | ICD-10-CM |
| C30.1 | Malignant neoplasm of middle ear                                       | Diagnosis | ICD-10-CM |
| C31   | Malignant neoplasm of accessory sinuses                                | Diagnosis | ICD-10-CM |
| C31.0 | Malignant neoplasm of maxillary sinus                                  | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                              | Code      |           |
|--------|--------------------------------------------------------------------------|-----------|-----------|
|        |                                                                          | Category  | Code Type |
| C31.1  | Malignant neoplasm of ethmoidal sinus                                    | Diagnosis | ICD-10-CM |
| C31.2  | Malignant neoplasm of frontal sinus                                      | Diagnosis | ICD-10-CM |
| C31.3  | Malignant neoplasm of sphenoid sinus                                     | Diagnosis | ICD-10-CM |
| C31.8  | Malignant neoplasm of overlapping sites of accessory sinuses             | Diagnosis | ICD-10-CM |
| C31.9  | Malignant neoplasm of accessory sinus, unspecified                       | Diagnosis | ICD-10-CM |
| C32    | Malignant neoplasm of larynx                                             | Diagnosis | ICD-10-CM |
| C32.0  | Malignant neoplasm of glottis                                            | Diagnosis | ICD-10-CM |
| C32.1  | Malignant neoplasm of supraglottis                                       | Diagnosis | ICD-10-CM |
| C32.2  | Malignant neoplasm of subglottis                                         | Diagnosis | ICD-10-CM |
| C32.3  | Malignant neoplasm of laryngeal cartilage                                | Diagnosis | ICD-10-CM |
| C32.8  | Malignant neoplasm of overlapping sites of larynx                        | Diagnosis | ICD-10-CM |
| C32.9  | Malignant neoplasm of larynx, unspecified                                | Diagnosis | ICD-10-CM |
| C33    | Malignant neoplasm of trachea                                            | Diagnosis | ICD-10-CM |
| C34    | Malignant neoplasm of bronchus and lung                                  | Diagnosis | ICD-10-CM |
| C34.0  | Malignant neoplasm of main bronchus                                      | Diagnosis | ICD-10-CM |
| C34.00 | Malignant neoplasm of unspecified main bronchus                          | Diagnosis | ICD-10-CM |
| C34.01 | Malignant neoplasm of right main bronchus                                | Diagnosis | ICD-10-CM |
| C34.02 | Malignant neoplasm of left main bronchus                                 | Diagnosis | ICD-10-CM |
| C34.1  | Malignant neoplasm of upper lobe, bronchus or lung                       | Diagnosis | ICD-10-CM |
| C34.10 | Malignant neoplasm of upper lobe, unspecified bronchus or lung           | Diagnosis | ICD-10-CM |
| C34.11 | Malignant neoplasm of upper lobe, right bronchus or lung                 | Diagnosis | ICD-10-CM |
| C34.12 | Malignant neoplasm of upper lobe, left bronchus or lung                  | Diagnosis | ICD-10-CM |
| C34.2  | Malignant neoplasm of middle lobe, bronchus or lung                      | Diagnosis | ICD-10-CM |
| C34.3  | Malignant neoplasm of lower lobe, bronchus or lung                       | Diagnosis | ICD-10-CM |
| C34.30 | Malignant neoplasm of lower lobe, unspecified bronchus or lung           | Diagnosis | ICD-10-CM |
| C34.31 | Malignant neoplasm of lower lobe, right bronchus or lung                 | Diagnosis | ICD-10-CM |
| C34.32 | Malignant neoplasm of lower lobe, left bronchus or lung                  | Diagnosis | ICD-10-CM |
| C34.8  | Malignant neoplasm of overlapping sites of bronchus and lung             | Diagnosis | ICD-10-CM |
| C34.80 | Malignant neoplasm of overlapping sites of unspecified bronchus and lung | Diagnosis | ICD-10-CM |
| C34.81 | Malignant neoplasm of overlapping sites of right bronchus and lung       | Diagnosis | ICD-10-CM |
| C34.82 | Malignant neoplasm of overlapping sites of left bronchus and lung        | Diagnosis | ICD-10-CM |
| C34.9  | Malignant neoplasm of unspecified part of bronchus or lung               | Diagnosis | ICD-10-CM |
| C34.90 | Malignant neoplasm of unspecified part of unspecified bronchus or lung   | Diagnosis | ICD-10-CM |
| C34.91 | Malignant neoplasm of unspecified part of right bronchus or lung         | Diagnosis | ICD-10-CM |
| C34.92 | Malignant neoplasm of unspecified part of left bronchus or lung          | Diagnosis | ICD-10-CM |
| C37    | Malignant neoplasm of thymus                                             | Diagnosis | ICD-10-CM |
| C38    | Malignant neoplasm of heart, mediastinum and pleura                      | Diagnosis | ICD-10-CM |
| C38.0  | Malignant neoplasm of heart                                              | Diagnosis | ICD-10-CM |
| C38.1  | Malignant neoplasm of anterior mediastinum                               | Diagnosis | ICD-10-CM |
| C38.2  | Malignant neoplasm of posterior mediastinum                              | Diagnosis | ICD-10-CM |
| C38.3  | Malignant neoplasm of mediastinum, part unspecified                      | Diagnosis | ICD-10-CM |
| C38.4  | Malignant neoplasm of pleura                                             | Diagnosis | ICD-10-CM |
| C38.8  | Malignant neoplasm of overlapping sites of heart, mediastinum and pleura | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                          | Code      |           |
|---------|------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                      | Category  | Code Type |
| C39     | Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs | Diagnosis | ICD-10-CM |
| C39.0   | Malignant neoplasm of upper respiratory tract, part unspecified                                      | Diagnosis | ICD-10-CM |
| C39.9   | Malignant neoplasm of lower respiratory tract, part unspecified                                      | Diagnosis | ICD-10-CM |
| C40     | Malignant neoplasm of bone and articular cartilage of limbs                                          | Diagnosis | ICD-10-CM |
| C40.0   | Malignant neoplasm of scapula and long bones of upper limb                                           | Diagnosis | ICD-10-CM |
| C40.00  | Malignant neoplasm of scapula and long bones of unspecified upper limb                               | Diagnosis | ICD-10-CM |
| C40.01  | Malignant neoplasm of scapula and long bones of right upper limb                                     | Diagnosis | ICD-10-CM |
| C40.02  | Malignant neoplasm of scapula and long bones of left upper limb                                      | Diagnosis | ICD-10-CM |
| C40.1   | Malignant neoplasm of short bones of upper limb                                                      | Diagnosis | ICD-10-CM |
| C40.10  | Malignant neoplasm of short bones of unspecified upper limb                                          | Diagnosis | ICD-10-CM |
| C40.11  | Malignant neoplasm of short bones of right upper limb                                                | Diagnosis | ICD-10-CM |
| C40.12  | Malignant neoplasm of short bones of left upper limb                                                 | Diagnosis | ICD-10-CM |
| C40.2   | Malignant neoplasm of long bones of lower limb                                                       | Diagnosis | ICD-10-CM |
| C40.20  | Malignant neoplasm of long bones of unspecified lower limb                                           | Diagnosis | ICD-10-CM |
| C40.21  | Malignant neoplasm of long bones of right lower limb                                                 | Diagnosis | ICD-10-CM |
| C40.22  | Malignant neoplasm of long bones of left lower limb                                                  | Diagnosis | ICD-10-CM |
| C40.3   | Malignant neoplasm of short bones of lower limb                                                      | Diagnosis | ICD-10-CM |
| C40.30  | Malignant neoplasm of short bones of unspecified lower limb                                          | Diagnosis | ICD-10-CM |
| C40.31  | Malignant neoplasm of short bones of right lower limb                                                | Diagnosis | ICD-10-CM |
| C40.32  | Malignant neoplasm of short bones of left lower limb                                                 | Diagnosis | ICD-10-CM |
| C40.8   | Malignant neoplasm of overlapping sites of bone and articular cartilage of limb                      | Diagnosis | ICD-10-CM |
| C40.80  | Malignant neoplasm of overlapping sites of bone and articular cartilage of unspecified               | Diagnosis | ICD-10-CM |
| C40.81  | Malignant neoplasm of overlapping sites of bone and articular cartilage of right limb                | Diagnosis | ICD-10-CM |
| C40.82  | Malignant neoplasm of overlapping sites of bone and articular cartilage of left limb                 | Diagnosis | ICD-10-CM |
| C40.9   | Malignant neoplasm of unspecified bones and articular cartilage of limb                              | Diagnosis | ICD-10-CM |
| C40.90  | Malignant neoplasm of unspecified bones and articular cartilage of unspecified limb                  | Diagnosis | ICD-10-CM |
| C40.91  | Malignant neoplasm of unspecified bones and articular cartilage of right limb                        | Diagnosis | ICD-10-CM |
| C40.92  | Malignant neoplasm of unspecified bones and articular cartilage of left limb                         | Diagnosis | ICD-10-CM |
| C41     | Malignant neoplasm of bone and articular cartilage of other and unspecified sites                    | Diagnosis | ICD-10-CM |
| C41.0   | Malignant neoplasm of bones of skull and face                                                        | Diagnosis | ICD-10-CM |
| C41.1   | Malignant neoplasm of mandible                                                                       | Diagnosis | ICD-10-CM |
| C41.2   | Malignant neoplasm of vertebral column                                                               | Diagnosis | ICD-10-CM |
| C41.3   | Malignant neoplasm of ribs, sternum and clavicle                                                     | Diagnosis | ICD-10-CM |
| C41.4   | Malignant neoplasm of pelvic bones, sacrum and coccyx                                                | Diagnosis | ICD-10-CM |
| C41.9   | Malignant neoplasm of bone and articular cartilage, unspecified                                      | Diagnosis | ICD-10-CM |
| C43     | Malignant melanoma of skin                                                                           | Diagnosis | ICD-10-CM |
| C43.0   | Malignant melanoma of lip                                                                            | Diagnosis | ICD-10-CM |
| C43.1   | Malignant melanoma of eyelid, including canthus                                                      | Diagnosis | ICD-10-CM |
| C43.10  | Malignant melanoma of unspecified eyelid, including canthus                                          | Diagnosis | ICD-10-CM |
| C43.11  | Malignant melanoma of right eyelid, including canthus                                                | Diagnosis | ICD-10-CM |
| C43.111 | Malignant melanoma of right upper eyelid, including canthus                                          | Diagnosis | ICD-10-CM |
| C43.112 | Malignant melanoma of right lower eyelid, including canthus                                          | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                        | Code      |           |
|---------|--------------------------------------------------------------------|-----------|-----------|
|         |                                                                    | Category  | Code Type |
| C43.12  | Malignant melanoma of left eyelid, including canthus               | Diagnosis | ICD-10-CM |
| C43.121 | Malignant melanoma of left upper eyelid, including canthus         | Diagnosis | ICD-10-CM |
| C43.122 | Malignant melanoma of left lower eyelid, including canthus         | Diagnosis | ICD-10-CM |
| C43.2   | Malignant melanoma of ear and external auricular canal             | Diagnosis | ICD-10-CM |
| C43.20  | Malignant melanoma of unspecified ear and external auricular canal | Diagnosis | ICD-10-CM |
| C43.21  | Malignant melanoma of right ear and external auricular canal       | Diagnosis | ICD-10-CM |
| C43.22  | Malignant melanoma of left ear and external auricular canal        | Diagnosis | ICD-10-CM |
| C43.3   | Malignant melanoma of other and unspecified parts of face          | Diagnosis | ICD-10-CM |
| C43.30  | Malignant melanoma of unspecified part of face                     | Diagnosis | ICD-10-CM |
| C43.31  | Malignant melanoma of nose                                         | Diagnosis | ICD-10-CM |
| C43.39  | Malignant melanoma of other parts of face                          | Diagnosis | ICD-10-CM |
| C43.4   | Malignant melanoma of scalp and neck                               | Diagnosis | ICD-10-CM |
| C43.5   | Malignant melanoma of trunk                                        | Diagnosis | ICD-10-CM |
| C43.51  | Malignant melanoma of anal skin                                    | Diagnosis | ICD-10-CM |
| C43.52  | Malignant melanoma of skin of breast                               | Diagnosis | ICD-10-CM |
| C43.59  | Malignant melanoma of other part of trunk                          | Diagnosis | ICD-10-CM |
| C43.6   | Malignant melanoma of upper limb, including shoulder               | Diagnosis | ICD-10-CM |
| C43.60  | Malignant melanoma of unspecified upper limb, including shoulder   | Diagnosis | ICD-10-CM |
| C43.61  | Malignant melanoma of right upper limb, including shoulder         | Diagnosis | ICD-10-CM |
| C43.62  | Malignant melanoma of left upper limb, including shoulder          | Diagnosis | ICD-10-CM |
| C43.7   | Malignant melanoma of lower limb, including hip                    | Diagnosis | ICD-10-CM |
| C43.70  | Malignant melanoma of unspecified lower limb, including hip        | Diagnosis | ICD-10-CM |
| C43.71  | Malignant melanoma of right lower limb, including hip              | Diagnosis | ICD-10-CM |
| C43.72  | Malignant melanoma of left lower limb, including hip               | Diagnosis | ICD-10-CM |
| C43.8   | Malignant melanoma of overlapping sites of skin                    | Diagnosis | ICD-10-CM |
| C43.9   | Malignant melanoma of skin, unspecified                            | Diagnosis | ICD-10-CM |
| C45     | Mesothelioma                                                       | Diagnosis | ICD-10-CM |
| C45.0   | Mesothelioma of pleura                                             | Diagnosis | ICD-10-CM |
| C45.1   | Mesothelioma of peritoneum                                         | Diagnosis | ICD-10-CM |
| C45.2   | Mesothelioma of pericardium                                        | Diagnosis | ICD-10-CM |
| C45.7   | Mesothelioma of other sites                                        | Diagnosis | ICD-10-CM |
| C45.9   | Mesothelioma, unspecified                                          | Diagnosis | ICD-10-CM |
| C46     | Kaposi's sarcoma                                                   | Diagnosis | ICD-10-CM |
| C46.0   | Kaposi's sarcoma of skin                                           | Diagnosis | ICD-10-CM |
| C46.1   | Kaposi's sarcoma of soft tissue                                    | Diagnosis | ICD-10-CM |
| C46.2   | Kaposi's sarcoma of palate                                         | Diagnosis | ICD-10-CM |
| C46.3   | Kaposi's sarcoma of lymph nodes                                    | Diagnosis | ICD-10-CM |
| C46.4   | Kaposi's sarcoma of gastrointestinal sites                         | Diagnosis | ICD-10-CM |
| C46.5   | Kaposi's sarcoma of lung                                           | Diagnosis | ICD-10-CM |
| C46.50  | Kaposi's sarcoma of unspecified lung                               | Diagnosis | ICD-10-CM |
| C46.51  | Kaposi's sarcoma of right lung                                     | Diagnosis | ICD-10-CM |
| C46.52  | Kaposi's sarcoma of left lung                                      | Diagnosis | ICD-10-CM |
| C46.7   | Kaposi's sarcoma of other sites                                    | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                    | Code      |           |
|--------|------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                | Category  | Code Type |
| C46.9  | Kaposi's sarcoma, unspecified                                                                  | Diagnosis | ICD-10-CM |
| C47    | Malignant neoplasm of peripheral nerves and autonomic nervous system                           | Diagnosis | ICD-10-CM |
| C47.0  | Malignant neoplasm of peripheral nerves of head, face and neck                                 | Diagnosis | ICD-10-CM |
| C47.1  | Malignant neoplasm of peripheral nerves of upper limb, including shoulder                      | Diagnosis | ICD-10-CM |
| C47.10 | Malignant neoplasm of peripheral nerves of unspecified upper limb, including shoulder          | Diagnosis | ICD-10-CM |
| C47.11 | Malignant neoplasm of peripheral nerves of right upper limb, including shoulder                | Diagnosis | ICD-10-CM |
| C47.12 | Malignant neoplasm of peripheral nerves of left upper limb, including shoulder                 | Diagnosis | ICD-10-CM |
| C47.2  | Malignant neoplasm of peripheral nerves of lower limb, including hip                           | Diagnosis | ICD-10-CM |
| C47.20 | Malignant neoplasm of peripheral nerves of unspecified lower limb, including hip               | Diagnosis | ICD-10-CM |
| C47.21 | Malignant neoplasm of peripheral nerves of right lower limb, including hip                     | Diagnosis | ICD-10-CM |
| C47.22 | Malignant neoplasm of peripheral nerves of left lower limb, including hip                      | Diagnosis | ICD-10-CM |
| C47.3  | Malignant neoplasm of peripheral nerves of thorax                                              | Diagnosis | ICD-10-CM |
| C47.4  | Malignant neoplasm of peripheral nerves of abdomen                                             | Diagnosis | ICD-10-CM |
| C47.5  | Malignant neoplasm of peripheral nerves of pelvis                                              | Diagnosis | ICD-10-CM |
| C47.6  | Malignant neoplasm of peripheral nerves of trunk, unspecified                                  | Diagnosis | ICD-10-CM |
| C47.8  | Malignant neoplasm of overlapping sites of peripheral nerves and autonomic nervous system      | Diagnosis | ICD-10-CM |
| C47.9  | Malignant neoplasm of peripheral nerves and autonomic nervous system, unspecified              | Diagnosis | ICD-10-CM |
| C48    | Malignant neoplasm of retroperitoneum and peritoneum                                           | Diagnosis | ICD-10-CM |
| C48.0  | Malignant neoplasm of retroperitoneum                                                          | Diagnosis | ICD-10-CM |
| C48.1  | Malignant neoplasm of specified parts of peritoneum                                            | Diagnosis | ICD-10-CM |
| C48.2  | Malignant neoplasm of peritoneum, unspecified                                                  | Diagnosis | ICD-10-CM |
| C48.8  | Malignant neoplasm of overlapping sites of retroperitoneum and peritoneum                      | Diagnosis | ICD-10-CM |
| C49    | Malignant neoplasm of other connective and soft tissue                                         | Diagnosis | ICD-10-CM |
| C49.0  | Malignant neoplasm of connective and soft tissue of head, face and neck                        | Diagnosis | ICD-10-CM |
| C49.1  | Malignant neoplasm of connective and soft tissue of upper limb, including shoulder             | Diagnosis | ICD-10-CM |
| C49.10 | Malignant neoplasm of connective and soft tissue of unspecified upper limb, including shoulder | Diagnosis | ICD-10-CM |
| C49.11 | Malignant neoplasm of connective and soft tissue of right upper limb, including shoulder       | Diagnosis | ICD-10-CM |
| C49.12 | Malignant neoplasm of connective and soft tissue of left upper limb, including shoulder        | Diagnosis | ICD-10-CM |
| C49.2  | Malignant neoplasm of connective and soft tissue of lower limb, including hip                  | Diagnosis | ICD-10-CM |
| C49.20 | Malignant neoplasm of connective and soft tissue of unspecified lower limb, including hip      | Diagnosis | ICD-10-CM |
| C49.21 | Malignant neoplasm of connective and soft tissue of right lower limb, including hip            | Diagnosis | ICD-10-CM |
| C49.22 | Malignant neoplasm of connective and soft tissue of left lower limb, including hip             | Diagnosis | ICD-10-CM |
| C49.3  | Malignant neoplasm of connective and soft tissue of thorax                                     | Diagnosis | ICD-10-CM |
| C49.4  | Malignant neoplasm of connective and soft tissue of abdomen                                    | Diagnosis | ICD-10-CM |
| C49.5  | Malignant neoplasm of connective and soft tissue of pelvis                                     | Diagnosis | ICD-10-CM |
| C49.6  | Malignant neoplasm of connective and soft tissue of trunk, unspecified                         | Diagnosis | ICD-10-CM |
| C49.8  | Malignant neoplasm of overlapping sites of connective and soft tissue                          | Diagnosis | ICD-10-CM |
| C49.9  | Malignant neoplasm of connective and soft tissue, unspecified                                  | Diagnosis | ICD-10-CM |
| C49.A  | Gastrointestinal stromal tumor                                                                 | Diagnosis | ICD-10-CM |
| C49.A0 | Gastrointestinal stromal tumor, unspecified site                                               | Diagnosis | ICD-10-CM |
| C49.A1 | Gastrointestinal stromal tumor of esophagus                                                    | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                             | Code      |           |
|---------|-------------------------------------------------------------------------|-----------|-----------|
|         |                                                                         | Category  | Code Type |
| C49.A2  | Gastrointestinal stromal tumor of stomach                               | Diagnosis | ICD-10-CM |
| C49.A3  | Gastrointestinal stromal tumor of small intestine                       | Diagnosis | ICD-10-CM |
| C49.A4  | Gastrointestinal stromal tumor of large intestine                       | Diagnosis | ICD-10-CM |
| C49.A5  | Gastrointestinal stromal tumor of rectum                                | Diagnosis | ICD-10-CM |
| C49.A9  | Gastrointestinal stromal tumor of other sites                           | Diagnosis | ICD-10-CM |
| C50     | Malignant neoplasm of breast                                            | Diagnosis | ICD-10-CM |
| C50.0   | Malignant neoplasm of nipple and areola                                 | Diagnosis | ICD-10-CM |
| C50.01  | Malignant neoplasm of nipple and areola, female                         | Diagnosis | ICD-10-CM |
| C50.011 | Malignant neoplasm of nipple and areola, right female breast            | Diagnosis | ICD-10-CM |
| C50.012 | Malignant neoplasm of nipple and areola, left female breast             | Diagnosis | ICD-10-CM |
| C50.019 | Malignant neoplasm of nipple and areola, unspecified female breast      | Diagnosis | ICD-10-CM |
| C50.02  | Malignant neoplasm of nipple and areola, male                           | Diagnosis | ICD-10-CM |
| C50.021 | Malignant neoplasm of nipple and areola, right male breast              | Diagnosis | ICD-10-CM |
| C50.022 | Malignant neoplasm of nipple and areola, left male breast               | Diagnosis | ICD-10-CM |
| C50.029 | Malignant neoplasm of nipple and areola, unspecified male breast        | Diagnosis | ICD-10-CM |
| C50.1   | Malignant neoplasm of central portion of breast                         | Diagnosis | ICD-10-CM |
| C50.11  | Malignant neoplasm of central portion of breast, female                 | Diagnosis | ICD-10-CM |
| C50.111 | Malignant neoplasm of central portion of right female breast            | Diagnosis | ICD-10-CM |
| C50.112 | Malignant neoplasm of central portion of left female breast             | Diagnosis | ICD-10-CM |
| C50.119 | Malignant neoplasm of central portion of unspecified female breast      | Diagnosis | ICD-10-CM |
| C50.12  | Malignant neoplasm of central portion of breast, male                   | Diagnosis | ICD-10-CM |
| C50.121 | Malignant neoplasm of central portion of right male breast              | Diagnosis | ICD-10-CM |
| C50.122 | Malignant neoplasm of central portion of left male breast               | Diagnosis | ICD-10-CM |
| C50.129 | Malignant neoplasm of central portion of unspecified male breast        | Diagnosis | ICD-10-CM |
| C50.2   | Malignant neoplasm of upper-inner quadrant of breast                    | Diagnosis | ICD-10-CM |
| C50.21  | Malignant neoplasm of upper-inner quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.211 | Malignant neoplasm of upper-inner quadrant of right female breast       | Diagnosis | ICD-10-CM |
| C50.212 | Malignant neoplasm of upper-inner quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.219 | Malignant neoplasm of upper-inner quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.22  | Malignant neoplasm of upper-inner quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.221 | Malignant neoplasm of upper-inner quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.222 | Malignant neoplasm of upper-inner quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.229 | Malignant neoplasm of upper-inner quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.3   | Malignant neoplasm of lower-inner quadrant of breast                    | Diagnosis | ICD-10-CM |
| C50.31  | Malignant neoplasm of lower-inner quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.311 | Malignant neoplasm of lower-inner quadrant of right female breast       | Diagnosis | ICD-10-CM |
| C50.312 | Malignant neoplasm of lower-inner quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.319 | Malignant neoplasm of lower-inner quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.32  | Malignant neoplasm of lower-inner quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.321 | Malignant neoplasm of lower-inner quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.322 | Malignant neoplasm of lower-inner quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.329 | Malignant neoplasm of lower-inner quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.4   | Malignant neoplasm of upper-outer quadrant of breast                    | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                             | Code      |           |
|---------|-------------------------------------------------------------------------|-----------|-----------|
|         |                                                                         | Category  | Code Type |
| C50.41  | Malignant neoplasm of upper-outer quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.411 | Malignant neoplasm of upper-outer quadrant of right female breast       | Diagnosis | ICD-10-CM |
| C50.412 | Malignant neoplasm of upper-outer quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.419 | Malignant neoplasm of upper-outer quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.42  | Malignant neoplasm of upper-outer quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.421 | Malignant neoplasm of upper-outer quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.422 | Malignant neoplasm of upper-outer quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.429 | Malignant neoplasm of upper-outer quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.5   | Malignant neoplasm of lower-outer quadrant of breast                    | Diagnosis | ICD-10-CM |
| C50.51  | Malignant neoplasm of lower-outer quadrant of breast, female            | Diagnosis | ICD-10-CM |
| C50.511 | Malignant neoplasm of lower-outer quadrant of right female breast       | Diagnosis | ICD-10-CM |
| C50.512 | Malignant neoplasm of lower-outer quadrant of left female breast        | Diagnosis | ICD-10-CM |
| C50.519 | Malignant neoplasm of lower-outer quadrant of unspecified female breast | Diagnosis | ICD-10-CM |
| C50.52  | Malignant neoplasm of lower-outer quadrant of breast, male              | Diagnosis | ICD-10-CM |
| C50.521 | Malignant neoplasm of lower-outer quadrant of right male breast         | Diagnosis | ICD-10-CM |
| C50.522 | Malignant neoplasm of lower-outer quadrant of left male breast          | Diagnosis | ICD-10-CM |
| C50.529 | Malignant neoplasm of lower-outer quadrant of unspecified male breast   | Diagnosis | ICD-10-CM |
| C50.6   | Malignant neoplasm of axillary tail of breast                           | Diagnosis | ICD-10-CM |
| C50.61  | Malignant neoplasm of axillary tail of breast, female                   | Diagnosis | ICD-10-CM |
| C50.611 | Malignant neoplasm of axillary tail of right female breast              | Diagnosis | ICD-10-CM |
| C50.612 | Malignant neoplasm of axillary tail of left female breast               | Diagnosis | ICD-10-CM |
| C50.619 | Malignant neoplasm of axillary tail of unspecified female breast        | Diagnosis | ICD-10-CM |
| C50.62  | Malignant neoplasm of axillary tail of breast, male                     | Diagnosis | ICD-10-CM |
| C50.621 | Malignant neoplasm of axillary tail of right male breast                | Diagnosis | ICD-10-CM |
| C50.622 | Malignant neoplasm of axillary tail of left male breast                 | Diagnosis | ICD-10-CM |
| C50.629 | Malignant neoplasm of axillary tail of unspecified male breast          | Diagnosis | ICD-10-CM |
| C50.8   | Malignant neoplasm of overlapping sites of breast                       | Diagnosis | ICD-10-CM |
| C50.81  | Malignant neoplasm of overlapping sites of breast, female               | Diagnosis | ICD-10-CM |
| C50.811 | Malignant neoplasm of overlapping sites of right female breast          | Diagnosis | ICD-10-CM |
| C50.812 | Malignant neoplasm of overlapping sites of left female breast           | Diagnosis | ICD-10-CM |
| C50.819 | Malignant neoplasm of overlapping sites of unspecified female breast    | Diagnosis | ICD-10-CM |
| C50.82  | Malignant neoplasm of overlapping sites of breast, male                 | Diagnosis | ICD-10-CM |
| C50.821 | Malignant neoplasm of overlapping sites of right male breast            | Diagnosis | ICD-10-CM |
| C50.822 | Malignant neoplasm of overlapping sites of left male breast             | Diagnosis | ICD-10-CM |
| C50.829 | Malignant neoplasm of overlapping sites of unspecified male breast      | Diagnosis | ICD-10-CM |
| C50.9   | Malignant neoplasm of breast of unspecified site                        | Diagnosis | ICD-10-CM |
| C50.91  | Malignant neoplasm of breast of unspecified site, female                | Diagnosis | ICD-10-CM |
| C50.911 | Malignant neoplasm of unspecified site of right female breast           | Diagnosis | ICD-10-CM |
| C50.912 | Malignant neoplasm of unspecified site of left female breast            | Diagnosis | ICD-10-CM |
| C50.919 | Malignant neoplasm of unspecified site of unspecified female breast     | Diagnosis | ICD-10-CM |
| C50.92  | Malignant neoplasm of breast of unspecified site, male                  | Diagnosis | ICD-10-CM |
| C50.921 | Malignant neoplasm of unspecified site of right male breast             | Diagnosis | ICD-10-CM |
| C50.922 | Malignant neoplasm of unspecified site of left male breast              | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                       | Code      |           |
|---------|-------------------------------------------------------------------|-----------|-----------|
|         |                                                                   | Category  | Code Type |
| C50.929 | Malignant neoplasm of unspecified site of unspecified male breast | Diagnosis | ICD-10-CM |
| C51     | Malignant neoplasm of vulva                                       | Diagnosis | ICD-10-CM |
| C51.0   | Malignant neoplasm of labium majus                                | Diagnosis | ICD-10-CM |
| C51.1   | Malignant neoplasm of labium minus                                | Diagnosis | ICD-10-CM |
| C51.2   | Malignant neoplasm of clitoris                                    | Diagnosis | ICD-10-CM |
| C51.8   | Malignant neoplasm of overlapping sites of vulva                  | Diagnosis | ICD-10-CM |
| C51.9   | Malignant neoplasm of vulva, unspecified                          | Diagnosis | ICD-10-CM |
| C52     | Malignant neoplasm of vagina                                      | Diagnosis | ICD-10-CM |
| C53     | Malignant neoplasm of cervix uteri                                | Diagnosis | ICD-10-CM |
| C53.0   | Malignant neoplasm of endocervix                                  | Diagnosis | ICD-10-CM |
| C53.1   | Malignant neoplasm of exocervix                                   | Diagnosis | ICD-10-CM |
| C53.8   | Malignant neoplasm of overlapping sites of cervix uteri           | Diagnosis | ICD-10-CM |
| C53.9   | Malignant neoplasm of cervix uteri, unspecified                   | Diagnosis | ICD-10-CM |
| C54     | Malignant neoplasm of corpus uteri                                | Diagnosis | ICD-10-CM |
| C54.0   | Malignant neoplasm of isthmus uteri                               | Diagnosis | ICD-10-CM |
| C54.1   | Malignant neoplasm of endometrium                                 | Diagnosis | ICD-10-CM |
| C54.2   | Malignant neoplasm of myometrium                                  | Diagnosis | ICD-10-CM |
| C54.3   | Malignant neoplasm of fundus uteri                                | Diagnosis | ICD-10-CM |
| C54.8   | Malignant neoplasm of overlapping sites of corpus uteri           | Diagnosis | ICD-10-CM |
| C54.9   | Malignant neoplasm of corpus uteri, unspecified                   | Diagnosis | ICD-10-CM |
| C55     | Malignant neoplasm of uterus, part unspecified                    | Diagnosis | ICD-10-CM |
| C56     | Malignant neoplasm of ovary                                       | Diagnosis | ICD-10-CM |
| C56.1   | Malignant neoplasm of right ovary                                 | Diagnosis | ICD-10-CM |
| C56.2   | Malignant neoplasm of left ovary                                  | Diagnosis | ICD-10-CM |
| C56.3   | Malignant neoplasm of bilateral ovaries                           | Diagnosis | ICD-10-CM |
| C56.9   | Malignant neoplasm of unspecified ovary                           | Diagnosis | ICD-10-CM |
| C57     | Malignant neoplasm of other and unspecified female genital organs | Diagnosis | ICD-10-CM |
| C57.0   | Malignant neoplasm of fallopian tube                              | Diagnosis | ICD-10-CM |
| C57.00  | Malignant neoplasm of unspecified fallopian tube                  | Diagnosis | ICD-10-CM |
| C57.01  | Malignant neoplasm of right fallopian tube                        | Diagnosis | ICD-10-CM |
| C57.02  | Malignant neoplasm of left fallopian tube                         | Diagnosis | ICD-10-CM |
| C57.1   | Malignant neoplasm of broad ligament                              | Diagnosis | ICD-10-CM |
| C57.10  | Malignant neoplasm of unspecified broad ligament                  | Diagnosis | ICD-10-CM |
| C57.11  | Malignant neoplasm of right broad ligament                        | Diagnosis | ICD-10-CM |
| C57.12  | Malignant neoplasm of left broad ligament                         | Diagnosis | ICD-10-CM |
| C57.2   | Malignant neoplasm of round ligament                              | Diagnosis | ICD-10-CM |
| C57.20  | Malignant neoplasm of unspecified round ligament                  | Diagnosis | ICD-10-CM |
| C57.21  | Malignant neoplasm of right round ligament                        | Diagnosis | ICD-10-CM |
| C57.22  | Malignant neoplasm of left round ligament                         | Diagnosis | ICD-10-CM |
| C57.3   | Malignant neoplasm of parametrium                                 | Diagnosis | ICD-10-CM |
| C57.4   | Malignant neoplasm of uterine adnexa, unspecified                 | Diagnosis | ICD-10-CM |
| C57.7   | Malignant neoplasm of other specified female genital organs       | Diagnosis | ICD-10-CM |
| C57.8   | Malignant neoplasm of overlapping sites of female genital organs  | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                      | Code      |           |
|--------|----------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                  | Category  | Code Type |
| C57.9  | Malignant neoplasm of female genital organ, unspecified                          | Diagnosis | ICD-10-CM |
| C58    | Malignant neoplasm of placenta                                                   | Diagnosis | ICD-10-CM |
| C60    | Malignant neoplasm of penis                                                      | Diagnosis | ICD-10-CM |
| C60.0  | Malignant neoplasm of prepuce                                                    | Diagnosis | ICD-10-CM |
| C60.1  | Malignant neoplasm of glans penis                                                | Diagnosis | ICD-10-CM |
| C60.2  | Malignant neoplasm of body of penis                                              | Diagnosis | ICD-10-CM |
| C60.8  | Malignant neoplasm of overlapping sites of penis                                 | Diagnosis | ICD-10-CM |
| C60.9  | Malignant neoplasm of penis, unspecified                                         | Diagnosis | ICD-10-CM |
| C61    | Malignant neoplasm of prostate                                                   | Diagnosis | ICD-10-CM |
| C62    | Malignant neoplasm of testis                                                     | Diagnosis | ICD-10-CM |
| C62.0  | Malignant neoplasm of undescended testis                                         | Diagnosis | ICD-10-CM |
| C62.00 | Malignant neoplasm of unspecified undescended testis                             | Diagnosis | ICD-10-CM |
| C62.01 | Malignant neoplasm of undescended right testis                                   | Diagnosis | ICD-10-CM |
| C62.02 | Malignant neoplasm of undescended left testis                                    | Diagnosis | ICD-10-CM |
| C62.1  | Malignant neoplasm of descended testis                                           | Diagnosis | ICD-10-CM |
| C62.10 | Malignant neoplasm of unspecified descended testis                               | Diagnosis | ICD-10-CM |
| C62.11 | Malignant neoplasm of descended right testis                                     | Diagnosis | ICD-10-CM |
| C62.12 | Malignant neoplasm of descended left testis                                      | Diagnosis | ICD-10-CM |
| C62.9  | Malignant neoplasm of testis, unspecified whether descended or undescended       | Diagnosis | ICD-10-CM |
| C62.90 | Malignant neoplasm of unspecified testis, unspecified whether descended or       | Diagnosis | ICD-10-CM |
| C62.91 | Malignant neoplasm of right testis, unspecified whether descended or undescended | Diagnosis | ICD-10-CM |
| C62.92 | Malignant neoplasm of left testis, unspecified whether descended or undescended  | Diagnosis | ICD-10-CM |
| C63    | Malignant neoplasm of other and unspecified male genital organs                  | Diagnosis | ICD-10-CM |
| C63.0  | Malignant neoplasm of epididymis                                                 | Diagnosis | ICD-10-CM |
| C63.00 | Malignant neoplasm of unspecified epididymis                                     | Diagnosis | ICD-10-CM |
| C63.01 | Malignant neoplasm of right epididymis                                           | Diagnosis | ICD-10-CM |
| C63.02 | Malignant neoplasm of left epididymis                                            | Diagnosis | ICD-10-CM |
| C63.1  | Malignant neoplasm of spermatic cord                                             | Diagnosis | ICD-10-CM |
| C63.10 | Malignant neoplasm of unspecified spermatic cord                                 | Diagnosis | ICD-10-CM |
| C63.11 | Malignant neoplasm of right spermatic cord                                       | Diagnosis | ICD-10-CM |
| C63.12 | Malignant neoplasm of left spermatic cord                                        | Diagnosis | ICD-10-CM |
| C63.2  | Malignant neoplasm of scrotum                                                    | Diagnosis | ICD-10-CM |
| C63.7  | Malignant neoplasm of other specified male genital organs                        | Diagnosis | ICD-10-CM |
| C63.8  | Malignant neoplasm of overlapping sites of male genital organs                   | Diagnosis | ICD-10-CM |
| C63.9  | Malignant neoplasm of male genital organ, unspecified                            | Diagnosis | ICD-10-CM |
| C64    | Malignant neoplasm of kidney, except renal pelvis                                | Diagnosis | ICD-10-CM |
| C64.1  | Malignant neoplasm of right kidney, except renal pelvis                          | Diagnosis | ICD-10-CM |
| C64.2  | Malignant neoplasm of left kidney, except renal pelvis                           | Diagnosis | ICD-10-CM |
| C64.9  | Malignant neoplasm of unspecified kidney, except renal pelvis                    | Diagnosis | ICD-10-CM |
| C65    | Malignant neoplasm of renal pelvis                                               | Diagnosis | ICD-10-CM |
| C65.1  | Malignant neoplasm of right renal pelvis                                         | Diagnosis | ICD-10-CM |
| C65.2  | Malignant neoplasm of left renal pelvis                                          | Diagnosis | ICD-10-CM |
| C65.9  | Malignant neoplasm of unspecified renal pelvis                                   | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                | Code      |           |
|--------|------------------------------------------------------------|-----------|-----------|
|        |                                                            | Category  | Code Type |
| C66    | Malignant neoplasm of ureter                               | Diagnosis | ICD-10-CM |
| C66.1  | Malignant neoplasm of right ureter                         | Diagnosis | ICD-10-CM |
| C66.2  | Malignant neoplasm of left ureter                          | Diagnosis | ICD-10-CM |
| C66.9  | Malignant neoplasm of unspecified ureter                   | Diagnosis | ICD-10-CM |
| C67    | Malignant neoplasm of bladder                              | Diagnosis | ICD-10-CM |
| C67.0  | Malignant neoplasm of trigone of bladder                   | Diagnosis | ICD-10-CM |
| C67.1  | Malignant neoplasm of dome of bladder                      | Diagnosis | ICD-10-CM |
| C67.2  | Malignant neoplasm of lateral wall of bladder              | Diagnosis | ICD-10-CM |
| C67.3  | Malignant neoplasm of anterior wall of bladder             | Diagnosis | ICD-10-CM |
| C67.4  | Malignant neoplasm of posterior wall of bladder            | Diagnosis | ICD-10-CM |
| C67.5  | Malignant neoplasm of bladder neck                         | Diagnosis | ICD-10-CM |
| C67.6  | Malignant neoplasm of ureteric orifice                     | Diagnosis | ICD-10-CM |
| C67.7  | Malignant neoplasm of urachus                              | Diagnosis | ICD-10-CM |
| C67.8  | Malignant neoplasm of overlapping sites of bladder         | Diagnosis | ICD-10-CM |
| C67.9  | Malignant neoplasm of bladder, unspecified                 | Diagnosis | ICD-10-CM |
| C68    | Malignant neoplasm of other and unspecified urinary organs | Diagnosis | ICD-10-CM |
| C68.0  | Malignant neoplasm of urethra                              | Diagnosis | ICD-10-CM |
| C68.1  | Malignant neoplasm of paraurethral glands                  | Diagnosis | ICD-10-CM |
| C68.8  | Malignant neoplasm of overlapping sites of urinary organs  | Diagnosis | ICD-10-CM |
| C68.9  | Malignant neoplasm of urinary organ, unspecified           | Diagnosis | ICD-10-CM |
| C69    | Malignant neoplasm of eye and adnexa                       | Diagnosis | ICD-10-CM |
| C69.0  | Malignant neoplasm of conjunctiva                          | Diagnosis | ICD-10-CM |
| C69.00 | Malignant neoplasm of unspecified conjunctiva              | Diagnosis | ICD-10-CM |
| C69.01 | Malignant neoplasm of right conjunctiva                    | Diagnosis | ICD-10-CM |
| C69.02 | Malignant neoplasm of left conjunctiva                     | Diagnosis | ICD-10-CM |
| C69.1  | Malignant neoplasm of cornea                               | Diagnosis | ICD-10-CM |
| C69.10 | Malignant neoplasm of unspecified cornea                   | Diagnosis | ICD-10-CM |
| C69.11 | Malignant neoplasm of right cornea                         | Diagnosis | ICD-10-CM |
| C69.12 | Malignant neoplasm of left cornea                          | Diagnosis | ICD-10-CM |
| C69.2  | Malignant neoplasm of retina                               | Diagnosis | ICD-10-CM |
| C69.20 | Malignant neoplasm of unspecified retina                   | Diagnosis | ICD-10-CM |
| C69.21 | Malignant neoplasm of right retina                         | Diagnosis | ICD-10-CM |
| C69.22 | Malignant neoplasm of left retina                          | Diagnosis | ICD-10-CM |
| C69.3  | Malignant neoplasm of choroid                              | Diagnosis | ICD-10-CM |
| C69.30 | Malignant neoplasm of unspecified choroid                  | Diagnosis | ICD-10-CM |
| C69.31 | Malignant neoplasm of right choroid                        | Diagnosis | ICD-10-CM |
| C69.32 | Malignant neoplasm of left choroid                         | Diagnosis | ICD-10-CM |
| C69.4  | Malignant neoplasm of ciliary body                         | Diagnosis | ICD-10-CM |
| C69.40 | Malignant neoplasm of unspecified ciliary body             | Diagnosis | ICD-10-CM |
| C69.41 | Malignant neoplasm of right ciliary body                   | Diagnosis | ICD-10-CM |
| C69.42 | Malignant neoplasm of left ciliary body                    | Diagnosis | ICD-10-CM |
| C69.5  | Malignant neoplasm of lacrimal gland and duct              | Diagnosis | ICD-10-CM |
| C69.50 | Malignant neoplasm of unspecified lacrimal gland and duct  | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                 | Code      |           |
|--------|---------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                             | Category  | Code Type |
| C69.51 | Malignant neoplasm of right lacrimal gland and duct                                         | Diagnosis | ICD-10-CM |
| C69.52 | Malignant neoplasm of left lacrimal gland and duct                                          | Diagnosis | ICD-10-CM |
| C69.6  | Malignant neoplasm of orbit                                                                 | Diagnosis | ICD-10-CM |
| C69.60 | Malignant neoplasm of unspecified orbit                                                     | Diagnosis | ICD-10-CM |
| C69.61 | Malignant neoplasm of right orbit                                                           | Diagnosis | ICD-10-CM |
| C69.62 | Malignant neoplasm of left orbit                                                            | Diagnosis | ICD-10-CM |
| C69.8  | Malignant neoplasm of overlapping sites of eye and adnexa                                   | Diagnosis | ICD-10-CM |
| C69.80 | Malignant neoplasm of overlapping sites of unspecified eye and adnexa                       | Diagnosis | ICD-10-CM |
| C69.81 | Malignant neoplasm of overlapping sites of right eye and adnexa                             | Diagnosis | ICD-10-CM |
| C69.82 | Malignant neoplasm of overlapping sites of left eye and adnexa                              | Diagnosis | ICD-10-CM |
| C69.9  | Malignant neoplasm of unspecified site of eye                                               | Diagnosis | ICD-10-CM |
| C69.90 | Malignant neoplasm of unspecified site of unspecified eye                                   | Diagnosis | ICD-10-CM |
| C69.91 | Malignant neoplasm of unspecified site of right eye                                         | Diagnosis | ICD-10-CM |
| C69.92 | Malignant neoplasm of unspecified site of left eye                                          | Diagnosis | ICD-10-CM |
| C70    | Malignant neoplasm of meninges                                                              | Diagnosis | ICD-10-CM |
| C70.0  | Malignant neoplasm of cerebral meninges                                                     | Diagnosis | ICD-10-CM |
| C70.1  | Malignant neoplasm of spinal meninges                                                       | Diagnosis | ICD-10-CM |
| C70.9  | Malignant neoplasm of meninges, unspecified                                                 | Diagnosis | ICD-10-CM |
| C71    | Malignant neoplasm of brain                                                                 | Diagnosis | ICD-10-CM |
| C71.0  | Malignant neoplasm of cerebrum, except lobes and ventricles                                 | Diagnosis | ICD-10-CM |
| C71.1  | Malignant neoplasm of frontal lobe                                                          | Diagnosis | ICD-10-CM |
| C71.2  | Malignant neoplasm of temporal lobe                                                         | Diagnosis | ICD-10-CM |
| C71.3  | Malignant neoplasm of parietal lobe                                                         | Diagnosis | ICD-10-CM |
| C71.4  | Malignant neoplasm of occipital lobe                                                        | Diagnosis | ICD-10-CM |
| C71.5  | Malignant neoplasm of cerebral ventricle                                                    | Diagnosis | ICD-10-CM |
| C71.6  | Malignant neoplasm of cerebellum                                                            | Diagnosis | ICD-10-CM |
| C71.7  | Malignant neoplasm of brain stem                                                            | Diagnosis | ICD-10-CM |
| C71.8  | Malignant neoplasm of overlapping sites of brain                                            | Diagnosis | ICD-10-CM |
| C71.9  | Malignant neoplasm of brain, unspecified                                                    | Diagnosis | ICD-10-CM |
| C72    | Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system | Diagnosis | ICD-10-CM |
| C72.0  | Malignant neoplasm of spinal cord                                                           | Diagnosis | ICD-10-CM |
| C72.1  | Malignant neoplasm of cauda equina                                                          | Diagnosis | ICD-10-CM |
| C72.2  | Malignant neoplasm of olfactory nerve                                                       | Diagnosis | ICD-10-CM |
| C72.20 | Malignant neoplasm of unspecified olfactory nerve                                           | Diagnosis | ICD-10-CM |
| C72.21 | Malignant neoplasm of right olfactory nerve                                                 | Diagnosis | ICD-10-CM |
| C72.22 | Malignant neoplasm of left olfactory nerve                                                  | Diagnosis | ICD-10-CM |
| C72.3  | Malignant neoplasm of optic nerve                                                           | Diagnosis | ICD-10-CM |
| C72.30 | Malignant neoplasm of unspecified optic nerve                                               | Diagnosis | ICD-10-CM |
| C72.31 | Malignant neoplasm of right optic nerve                                                     | Diagnosis | ICD-10-CM |
| C72.32 | Malignant neoplasm of left optic nerve                                                      | Diagnosis | ICD-10-CM |
| C72.4  | Malignant neoplasm of acoustic nerve                                                        | Diagnosis | ICD-10-CM |
| C72.40 | Malignant neoplasm of unspecified acoustic nerve                                            | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                         | Code      |           |
|--------|---------------------------------------------------------------------|-----------|-----------|
|        |                                                                     | Category  | Code Type |
| C72.41 | Malignant neoplasm of right acoustic nerve                          | Diagnosis | ICD-10-CM |
| C72.42 | Malignant neoplasm of left acoustic nerve                           | Diagnosis | ICD-10-CM |
| C72.5  | Malignant neoplasm of other and unspecified cranial nerves          | Diagnosis | ICD-10-CM |
| C72.50 | Malignant neoplasm of unspecified cranial nerve                     | Diagnosis | ICD-10-CM |
| C72.59 | Malignant neoplasm of other cranial nerves                          | Diagnosis | ICD-10-CM |
| C72.9  | Malignant neoplasm of central nervous system, unspecified           | Diagnosis | ICD-10-CM |
| C73    | Malignant neoplasm of thyroid gland                                 | Diagnosis | ICD-10-CM |
| C74    | Malignant neoplasm of adrenal gland                                 | Diagnosis | ICD-10-CM |
| C74.0  | Malignant neoplasm of cortex of adrenal gland                       | Diagnosis | ICD-10-CM |
| C74.00 | Malignant neoplasm of cortex of unspecified adrenal gland           | Diagnosis | ICD-10-CM |
| C74.01 | Malignant neoplasm of cortex of right adrenal gland                 | Diagnosis | ICD-10-CM |
| C74.02 | Malignant neoplasm of cortex of left adrenal gland                  | Diagnosis | ICD-10-CM |
| C74.1  | Malignant neoplasm of medulla of adrenal gland                      | Diagnosis | ICD-10-CM |
| C74.10 | Malignant neoplasm of medulla of unspecified adrenal gland          | Diagnosis | ICD-10-CM |
| C74.11 | Malignant neoplasm of medulla of right adrenal gland                | Diagnosis | ICD-10-CM |
| C74.12 | Malignant neoplasm of medulla of left adrenal gland                 | Diagnosis | ICD-10-CM |
| C74.9  | Malignant neoplasm of unspecified part of adrenal gland             | Diagnosis | ICD-10-CM |
| C74.90 | Malignant neoplasm of unspecified part of unspecified adrenal gland | Diagnosis | ICD-10-CM |
| C74.91 | Malignant neoplasm of unspecified part of right adrenal gland       | Diagnosis | ICD-10-CM |
| C74.92 | Malignant neoplasm of unspecified part of left adrenal gland        | Diagnosis | ICD-10-CM |
| C75    | Malignant neoplasm of other endocrine glands and related structures | Diagnosis | ICD-10-CM |
| C75.0  | Malignant neoplasm of parathyroid gland                             | Diagnosis | ICD-10-CM |
| C75.1  | Malignant neoplasm of pituitary gland                               | Diagnosis | ICD-10-CM |
| C75.2  | Malignant neoplasm of craniopharyngeal duct                         | Diagnosis | ICD-10-CM |
| C75.3  | Malignant neoplasm of pineal gland                                  | Diagnosis | ICD-10-CM |
| C75.4  | Malignant neoplasm of carotid body                                  | Diagnosis | ICD-10-CM |
| C75.5  | Malignant neoplasm of aortic body and other paraganglia             | Diagnosis | ICD-10-CM |
| C75.8  | Malignant neoplasm with pluriglandular involvement, unspecified     | Diagnosis | ICD-10-CM |
| C75.9  | Malignant neoplasm of endocrine gland, unspecified                  | Diagnosis | ICD-10-CM |
| C76    | Malignant neoplasm of other and ill-defined sites                   | Diagnosis | ICD-10-CM |
| C76.0  | Malignant neoplasm of head, face and neck                           | Diagnosis | ICD-10-CM |
| C76.1  | Malignant neoplasm of thorax                                        | Diagnosis | ICD-10-CM |
| C76.2  | Malignant neoplasm of abdomen                                       | Diagnosis | ICD-10-CM |
| C76.3  | Malignant neoplasm of pelvis                                        | Diagnosis | ICD-10-CM |
| C76.4  | Malignant neoplasm of upper limb                                    | Diagnosis | ICD-10-CM |
| C76.40 | Malignant neoplasm of unspecified upper limb                        | Diagnosis | ICD-10-CM |
| C76.41 | Malignant neoplasm of right upper limb                              | Diagnosis | ICD-10-CM |
| C76.42 | Malignant neoplasm of left upper limb                               | Diagnosis | ICD-10-CM |
| C76.5  | Malignant neoplasm of lower limb                                    | Diagnosis | ICD-10-CM |
| C76.50 | Malignant neoplasm of unspecified lower limb                        | Diagnosis | ICD-10-CM |
| C76.51 | Malignant neoplasm of right lower limb                              | Diagnosis | ICD-10-CM |
| C76.52 | Malignant neoplasm of left lower limb                               | Diagnosis | ICD-10-CM |
| C76.8  | Malignant neoplasm of other specified ill-defined sites             | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                         | Code      |           |
|--------|-------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                     | Category  | Code Type |
| C77    | Secondary and unspecified malignant neoplasm of lymph nodes                         | Diagnosis | ICD-10-CM |
| C77.0  | Secondary and unspecified malignant neoplasm of lymph nodes of head, face and neck  | Diagnosis | ICD-10-CM |
| C77.1  | Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes           | Diagnosis | ICD-10-CM |
| C77.2  | Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes         | Diagnosis | ICD-10-CM |
| C77.3  | Secondary and unspecified malignant neoplasm of axilla and upper limb lymph nodes   | Diagnosis | ICD-10-CM |
| C77.4  | Secondary and unspecified malignant neoplasm of inguinal and lower limb lymph nodes | Diagnosis | ICD-10-CM |
| C77.5  | Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes             | Diagnosis | ICD-10-CM |
| C77.8  | Secondary and unspecified malignant neoplasm of lymph nodes of multiple regions     | Diagnosis | ICD-10-CM |
| C77.9  | Secondary and unspecified malignant neoplasm of lymph node, unspecified             | Diagnosis | ICD-10-CM |
| C78    | Secondary malignant neoplasm of respiratory and digestive organs                    | Diagnosis | ICD-10-CM |
| C78.0  | Secondary malignant neoplasm of lung                                                | Diagnosis | ICD-10-CM |
| C78.00 | Secondary malignant neoplasm of unspecified lung                                    | Diagnosis | ICD-10-CM |
| C78.01 | Secondary malignant neoplasm of right lung                                          | Diagnosis | ICD-10-CM |
| C78.02 | Secondary malignant neoplasm of left lung                                           | Diagnosis | ICD-10-CM |
| C78.1  | Secondary malignant neoplasm of mediastinum                                         | Diagnosis | ICD-10-CM |
| C78.2  | Secondary malignant neoplasm of pleura                                              | Diagnosis | ICD-10-CM |
| C78.3  | Secondary malignant neoplasm of other and unspecified respiratory organs            | Diagnosis | ICD-10-CM |
| C78.30 | Secondary malignant neoplasm of unspecified respiratory organ                       | Diagnosis | ICD-10-CM |
| C78.39 | Secondary malignant neoplasm of other respiratory organs                            | Diagnosis | ICD-10-CM |
| C78.4  | Secondary malignant neoplasm of small intestine                                     | Diagnosis | ICD-10-CM |
| C78.5  | Secondary malignant neoplasm of large intestine and rectum                          | Diagnosis | ICD-10-CM |
| C78.6  | Secondary malignant neoplasm of retroperitoneum and peritoneum                      | Diagnosis | ICD-10-CM |
| C78.7  | Secondary malignant neoplasm of liver and intrahepatic bile duct                    | Diagnosis | ICD-10-CM |
| C78.8  | Secondary malignant neoplasm of other and unspecified digestive organs              | Diagnosis | ICD-10-CM |
| C78.80 | Secondary malignant neoplasm of unspecified digestive organ                         | Diagnosis | ICD-10-CM |
| C78.89 | Secondary malignant neoplasm of other digestive organs                              | Diagnosis | ICD-10-CM |
| C79    | Secondary malignant neoplasm of other and unspecified sites                         | Diagnosis | ICD-10-CM |
| C79.0  | Secondary malignant neoplasm of kidney and renal pelvis                             | Diagnosis | ICD-10-CM |
| C79.00 | Secondary malignant neoplasm of unspecified kidney and renal pelvis                 | Diagnosis | ICD-10-CM |
| C79.01 | Secondary malignant neoplasm of right kidney and renal pelvis                       | Diagnosis | ICD-10-CM |
| C79.02 | Secondary malignant neoplasm of left kidney and renal pelvis                        | Diagnosis | ICD-10-CM |
| C79.1  | Secondary malignant neoplasm of bladder and other and unspecified urinary organs    | Diagnosis | ICD-10-CM |
| C79.10 | Secondary malignant neoplasm of unspecified urinary organs                          | Diagnosis | ICD-10-CM |
| C79.11 | Secondary malignant neoplasm of bladder                                             | Diagnosis | ICD-10-CM |
| C79.19 | Secondary malignant neoplasm of other urinary organs                                | Diagnosis | ICD-10-CM |
| C79.2  | Secondary malignant neoplasm of skin                                                | Diagnosis | ICD-10-CM |
| C79.3  | Secondary malignant neoplasm of brain and cerebral meninges                         | Diagnosis | ICD-10-CM |
| C79.31 | Secondary malignant neoplasm of brain                                               | Diagnosis | ICD-10-CM |
| C79.32 | Secondary malignant neoplasm of cerebral meninges                                   | Diagnosis | ICD-10-CM |
| C79.4  | Secondary malignant neoplasm of other and unspecified parts of nervous system       | Diagnosis | ICD-10-CM |
| C79.40 | Secondary malignant neoplasm of unspecified part of nervous system                  | Diagnosis | ICD-10-CM |
| C79.49 | Secondary malignant neoplasm of other parts of nervous system                       | Diagnosis | ICD-10-CM |
| C79.5  | Secondary malignant neoplasm of bone and bone marrow                                | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                             | Code      |           |
|---------|-------------------------------------------------------------------------|-----------|-----------|
|         |                                                                         | Category  | Code Type |
| C79.51  | Secondary malignant neoplasm of bone                                    | Diagnosis | ICD-10-CM |
| C79.52  | Secondary malignant neoplasm of bone marrow                             | Diagnosis | ICD-10-CM |
| C79.6   | Secondary malignant neoplasm of ovary                                   | Diagnosis | ICD-10-CM |
| C79.60  | Secondary malignant neoplasm of unspecified ovary                       | Diagnosis | ICD-10-CM |
| C79.61  | Secondary malignant neoplasm of right ovary                             | Diagnosis | ICD-10-CM |
| C79.62  | Secondary malignant neoplasm of left ovary                              | Diagnosis | ICD-10-CM |
| C79.63  | Secondary malignant neoplasm of bilateral ovaries                       | Diagnosis | ICD-10-CM |
| C79.7   | Secondary malignant neoplasm of adrenal gland                           | Diagnosis | ICD-10-CM |
| C79.70  | Secondary malignant neoplasm of unspecified adrenal gland               | Diagnosis | ICD-10-CM |
| C79.71  | Secondary malignant neoplasm of right adrenal gland                     | Diagnosis | ICD-10-CM |
| C79.72  | Secondary malignant neoplasm of left adrenal gland                      | Diagnosis | ICD-10-CM |
| C79.8   | Secondary malignant neoplasm of other specified sites                   | Diagnosis | ICD-10-CM |
| C79.81  | Secondary malignant neoplasm of breast                                  | Diagnosis | ICD-10-CM |
| C79.82  | Secondary malignant neoplasm of genital organs                          | Diagnosis | ICD-10-CM |
| C79.89  | Secondary malignant neoplasm of other specified sites                   | Diagnosis | ICD-10-CM |
| C79.9   | Secondary malignant neoplasm of unspecified site                        | Diagnosis | ICD-10-CM |
| C7A     | Malignant neuroendocrine tumors                                         | Diagnosis | ICD-10-CM |
| C7A.0   | Malignant carcinoid tumors                                              | Diagnosis | ICD-10-CM |
| C7A.00  | Malignant carcinoid tumor of unspecified site                           | Diagnosis | ICD-10-CM |
| C7A.01  | Malignant carcinoid tumors of the small intestine                       | Diagnosis | ICD-10-CM |
| C7A.010 | Malignant carcinoid tumor of the duodenum                               | Diagnosis | ICD-10-CM |
| C7A.011 | Malignant carcinoid tumor of the jejunum                                | Diagnosis | ICD-10-CM |
| C7A.012 | Malignant carcinoid tumor of the ileum                                  | Diagnosis | ICD-10-CM |
| C7A.019 | Malignant carcinoid tumor of the small intestine, unspecified portion   | Diagnosis | ICD-10-CM |
| C7A.02  | Malignant carcinoid tumors of the appendix, large intestine, and rectum | Diagnosis | ICD-10-CM |
| C7A.020 | Malignant carcinoid tumor of the appendix                               | Diagnosis | ICD-10-CM |
| C7A.021 | Malignant carcinoid tumor of the cecum                                  | Diagnosis | ICD-10-CM |
| C7A.022 | Malignant carcinoid tumor of the ascending colon                        | Diagnosis | ICD-10-CM |
| C7A.023 | Malignant carcinoid tumor of the transverse colon                       | Diagnosis | ICD-10-CM |
| C7A.024 | Malignant carcinoid tumor of the descending colon                       | Diagnosis | ICD-10-CM |
| C7A.025 | Malignant carcinoid tumor of the sigmoid colon                          | Diagnosis | ICD-10-CM |
| C7A.026 | Malignant carcinoid tumor of the rectum                                 | Diagnosis | ICD-10-CM |
| C7A.029 | Malignant carcinoid tumor of the large intestine, unspecified portion   | Diagnosis | ICD-10-CM |
| C7A.09  | Malignant carcinoid tumors of other sites                               | Diagnosis | ICD-10-CM |
| C7A.090 | Malignant carcinoid tumor of the bronchus and lung                      | Diagnosis | ICD-10-CM |
| C7A.091 | Malignant carcinoid tumor of the thymus                                 | Diagnosis | ICD-10-CM |
| C7A.092 | Malignant carcinoid tumor of the stomach                                | Diagnosis | ICD-10-CM |
| C7A.093 | Malignant carcinoid tumor of the kidney                                 | Diagnosis | ICD-10-CM |
| C7A.094 | Malignant carcinoid tumor of the foregut, unspecified                   | Diagnosis | ICD-10-CM |
| C7A.095 | Malignant carcinoid tumor of the midgut, unspecified                    | Diagnosis | ICD-10-CM |
| C7A.096 | Malignant carcinoid tumor of the hindgut, unspecified                   | Diagnosis | ICD-10-CM |
| C7A.098 | Malignant carcinoid tumors of other sites                               | Diagnosis | ICD-10-CM |
| C7A.1   | Malignant poorly differentiated neuroendocrine tumors                   | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                    | Code      |           |
|--------|------------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                                | Category  | Code Type |
| C7A.8  | Other malignant neuroendocrine tumors                                                          | Diagnosis | ICD-10-CM |
| C7B    | Secondary neuroendocrine tumors                                                                | Diagnosis | ICD-10-CM |
| C7B.0  | Secondary carcinoid tumors                                                                     | Diagnosis | ICD-10-CM |
| C7B.00 | Secondary carcinoid tumors, unspecified site                                                   | Diagnosis | ICD-10-CM |
| C7B.01 | Secondary carcinoid tumors of distant lymph nodes                                              | Diagnosis | ICD-10-CM |
| C7B.02 | Secondary carcinoid tumors of liver                                                            | Diagnosis | ICD-10-CM |
| C7B.03 | Secondary carcinoid tumors of bone                                                             | Diagnosis | ICD-10-CM |
| C7B.04 | Secondary carcinoid tumors of peritoneum                                                       | Diagnosis | ICD-10-CM |
| C7B.09 | Secondary carcinoid tumors of other sites                                                      | Diagnosis | ICD-10-CM |
| C7B.8  | Other secondary neuroendocrine tumors                                                          | Diagnosis | ICD-10-CM |
| C80    | Malignant neoplasm without specification of site                                               | Diagnosis | ICD-10-CM |
| C80.0  | Disseminated malignant neoplasm, unspecified                                                   | Diagnosis | ICD-10-CM |
| C80.1  | Malignant (primary) neoplasm, unspecified                                                      | Diagnosis | ICD-10-CM |
| C80.2  | Malignant neoplasm associated with transplanted organ                                          | Diagnosis | ICD-10-CM |
| C81    | Hodgkin lymphoma                                                                               | Diagnosis | ICD-10-CM |
| C81.0  | Nodular lymphocyte predominant Hodgkin lymphoma                                                | Diagnosis | ICD-10-CM |
| C81.00 | Nodular lymphocyte predominant Hodgkin lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C81.01 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C81.02 | Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C81.03 | Nodular lymphocyte predominant Hodgkin lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C81.04 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C81.05 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C81.06 | Nodular lymphocyte predominant Hodgkin lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C81.07 | Nodular lymphocyte predominant Hodgkin lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C81.08 | Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C81.09 | Nodular lymphocyte predominant Hodgkin lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C81.1  | Nodular sclerosis Hodgkin lymphoma                                                             | Diagnosis | ICD-10-CM |
| C81.10 | Nodular sclerosis Hodgkin lymphoma, unspecified site                                           | Diagnosis | ICD-10-CM |
| C81.11 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of head, face, and neck                        | Diagnosis | ICD-10-CM |
| C81.12 | Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes                                  | Diagnosis | ICD-10-CM |
| C81.13 | Nodular sclerosis Hodgkin lymphoma, intra-abdominal lymph nodes                                | Diagnosis | ICD-10-CM |
| C81.14 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of axilla and upper limb                       | Diagnosis | ICD-10-CM |
| C81.15 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of inguinal region and lower limb              | Diagnosis | ICD-10-CM |
| C81.16 | Nodular sclerosis Hodgkin lymphoma, intrapelvic lymph nodes                                    | Diagnosis | ICD-10-CM |
| C81.17 | Nodular sclerosis Hodgkin lymphoma, spleen                                                     | Diagnosis | ICD-10-CM |
| C81.18 | Nodular sclerosis Hodgkin lymphoma, lymph nodes of multiple sites                              | Diagnosis | ICD-10-CM |
| C81.19 | Nodular sclerosis Hodgkin lymphoma, extranodal and solid organ sites                           | Diagnosis | ICD-10-CM |
| C81.2  | Mixed cellularity Hodgkin lymphoma                                                             | Diagnosis | ICD-10-CM |
| C81.20 | Mixed cellularity Hodgkin lymphoma, unspecified site                                           | Diagnosis | ICD-10-CM |
| C81.21 | Mixed cellularity Hodgkin lymphoma, lymph nodes of head, face, and neck                        | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                         | Code      |           |
|--------|-------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                     | Category  | Code Type |
| C81.22 | Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes                       | Diagnosis | ICD-10-CM |
| C81.23 | Mixed cellularity Hodgkin lymphoma, intra-abdominal lymph nodes                     | Diagnosis | ICD-10-CM |
| C81.24 | Mixed cellularity Hodgkin lymphoma, lymph nodes of axilla and upper limb            | Diagnosis | ICD-10-CM |
| C81.25 | Mixed cellularity Hodgkin lymphoma, lymph nodes of inguinal region and lower limb   | Diagnosis | ICD-10-CM |
| C81.26 | Mixed cellularity Hodgkin lymphoma, intrapelvic lymph nodes                         | Diagnosis | ICD-10-CM |
| C81.27 | Mixed cellularity Hodgkin lymphoma, spleen                                          | Diagnosis | ICD-10-CM |
| C81.28 | Mixed cellularity Hodgkin lymphoma, lymph nodes of multiple sites                   | Diagnosis | ICD-10-CM |
| C81.29 | Mixed cellularity Hodgkin lymphoma, extranodal and solid organ sites                | Diagnosis | ICD-10-CM |
| C81.3  | Lymphocyte depleted Hodgkin lymphoma                                                | Diagnosis | ICD-10-CM |
| C81.30 | Lymphocyte depleted Hodgkin lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C81.31 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C81.32 | Lymphocyte depleted Hodgkin lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C81.33 | Lymphocyte depleted Hodgkin lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C81.34 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C81.35 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C81.36 | Lymphocyte depleted Hodgkin lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C81.37 | Lymphocyte depleted Hodgkin lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C81.38 | Lymphocyte depleted Hodgkin lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C81.39 | Lymphocyte depleted Hodgkin lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C81.4  | Lymphocyte-rich Hodgkin lymphoma                                                    | Diagnosis | ICD-10-CM |
| C81.40 | Lymphocyte-rich Hodgkin lymphoma, unspecified site                                  | Diagnosis | ICD-10-CM |
| C81.41 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of head, face, and neck               | Diagnosis | ICD-10-CM |
| C81.42 | Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes                         | Diagnosis | ICD-10-CM |
| C81.43 | Lymphocyte-rich Hodgkin lymphoma, intra-abdominal lymph nodes                       | Diagnosis | ICD-10-CM |
| C81.44 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of axilla and upper limb              | Diagnosis | ICD-10-CM |
| C81.45 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of inguinal region and lower limb     | Diagnosis | ICD-10-CM |
| C81.46 | Lymphocyte-rich Hodgkin lymphoma, intrapelvic lymph nodes                           | Diagnosis | ICD-10-CM |
| C81.47 | Lymphocyte-rich Hodgkin lymphoma, spleen                                            | Diagnosis | ICD-10-CM |
| C81.48 | Lymphocyte-rich Hodgkin lymphoma, lymph nodes of multiple sites                     | Diagnosis | ICD-10-CM |
| C81.49 | Lymphocyte-rich Hodgkin lymphoma, extranodal and solid organ sites                  | Diagnosis | ICD-10-CM |
| C81.7  | Other Hodgkin lymphoma                                                              | Diagnosis | ICD-10-CM |
| C81.70 | Other Hodgkin lymphoma, unspecified site                                            | Diagnosis | ICD-10-CM |
| C81.71 | Other Hodgkin lymphoma, lymph nodes of head, face, and neck                         | Diagnosis | ICD-10-CM |
| C81.72 | Other Hodgkin lymphoma, intrathoracic lymph nodes                                   | Diagnosis | ICD-10-CM |
| C81.73 | Other Hodgkin lymphoma, intra-abdominal lymph nodes                                 | Diagnosis | ICD-10-CM |
| C81.74 | Other Hodgkin lymphoma, lymph nodes of axilla and upper limb                        | Diagnosis | ICD-10-CM |
| C81.75 | Other Hodgkin lymphoma, lymph nodes of inguinal region and lower limb               | Diagnosis | ICD-10-CM |
| C81.76 | Other Hodgkin lymphoma, intrapelvic lymph nodes                                     | Diagnosis | ICD-10-CM |
| C81.77 | Other Hodgkin lymphoma, spleen                                                      | Diagnosis | ICD-10-CM |
| C81.78 | Other Hodgkin lymphoma, lymph nodes of multiple sites                               | Diagnosis | ICD-10-CM |
| C81.79 | Other Hodgkin lymphoma, extranodal and solid organ sites                            | Diagnosis | ICD-10-CM |
| C81.9  | Hodgkin lymphoma, unspecified                                                       | Diagnosis | ICD-10-CM |
| C81.90 | Hodgkin lymphoma, unspecified, unspecified site                                     | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                               | Code      |           |
|--------|-------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                           | Category  | Code Type |
| C81.91 | Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck                        | Diagnosis | ICD-10-CM |
| C81.92 | Hodgkin lymphoma, unspecified, intrathoracic lymph nodes                                  | Diagnosis | ICD-10-CM |
| C81.93 | Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes                                | Diagnosis | ICD-10-CM |
| C81.94 | Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb                       | Diagnosis | ICD-10-CM |
| C81.95 | Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb              | Diagnosis | ICD-10-CM |
| C81.96 | Hodgkin lymphoma, unspecified, intrapelvic lymph nodes                                    | Diagnosis | ICD-10-CM |
| C81.97 | Hodgkin lymphoma, unspecified, spleen                                                     | Diagnosis | ICD-10-CM |
| C81.98 | Hodgkin lymphoma, unspecified, lymph nodes of multiple sites                              | Diagnosis | ICD-10-CM |
| C81.99 | Hodgkin lymphoma, unspecified, extranodal and solid organ sites                           | Diagnosis | ICD-10-CM |
| C82    | Follicular lymphoma                                                                       | Diagnosis | ICD-10-CM |
| C82.0  | Follicular lymphoma grade I                                                               | Diagnosis | ICD-10-CM |
| C82.00 | Follicular lymphoma grade I, unspecified site                                             | Diagnosis | ICD-10-CM |
| C82.01 | Follicular lymphoma grade I, lymph nodes of head, face, and neck                          | Diagnosis | ICD-10-CM |
| C82.02 | Follicular lymphoma grade I, intrathoracic lymph nodes                                    | Diagnosis | ICD-10-CM |
| C82.03 | Follicular lymphoma grade I, intra-abdominal lymph nodes                                  | Diagnosis | ICD-10-CM |
| C82.04 | Follicular lymphoma grade I, lymph nodes of axilla and upper limb                         | Diagnosis | ICD-10-CM |
| C82.05 | Follicular lymphoma grade I, lymph nodes of inguinal region and lower limb                | Diagnosis | ICD-10-CM |
| C82.06 | Follicular lymphoma grade I, intrapelvic lymph nodes                                      | Diagnosis | ICD-10-CM |
| C82.07 | Follicular lymphoma grade I, spleen                                                       | Diagnosis | ICD-10-CM |
| C82.08 | Follicular lymphoma grade I, lymph nodes of multiple sites                                | Diagnosis | ICD-10-CM |
| C82.09 | Follicular lymphoma grade I, extranodal and solid organ sites                             | Diagnosis | ICD-10-CM |
| C82.1  | Follicular lymphoma grade II                                                              | Diagnosis | ICD-10-CM |
| C82.10 | Follicular lymphoma grade II, unspecified site                                            | Diagnosis | ICD-10-CM |
| C82.11 | Follicular lymphoma grade II, lymph nodes of head, face, and neck                         | Diagnosis | ICD-10-CM |
| C82.12 | Follicular lymphoma grade II, intrathoracic lymph nodes                                   | Diagnosis | ICD-10-CM |
| C82.13 | Follicular lymphoma grade II, intra-abdominal lymph nodes                                 | Diagnosis | ICD-10-CM |
| C82.14 | Follicular lymphoma grade II, lymph nodes of axilla and upper limb                        | Diagnosis | ICD-10-CM |
| C82.15 | Follicular lymphoma grade II, lymph nodes of inguinal region and lower limb               | Diagnosis | ICD-10-CM |
| C82.16 | Follicular lymphoma grade II, intrapelvic lymph nodes                                     | Diagnosis | ICD-10-CM |
| C82.17 | Follicular lymphoma grade II, spleen                                                      | Diagnosis | ICD-10-CM |
| C82.18 | Follicular lymphoma grade II, lymph nodes of multiple sites                               | Diagnosis | ICD-10-CM |
| C82.19 | Follicular lymphoma grade II, extranodal and solid organ sites                            | Diagnosis | ICD-10-CM |
| C82.2  | Follicular lymphoma grade III, unspecified                                                | Diagnosis | ICD-10-CM |
| C82.20 | Follicular lymphoma grade III, unspecified, unspecified site                              | Diagnosis | ICD-10-CM |
| C82.21 | Follicular lymphoma grade III, unspecified, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C82.22 | Follicular lymphoma grade III, unspecified, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.23 | Follicular lymphoma grade III, unspecified, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C82.24 | Follicular lymphoma grade III, unspecified, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C82.25 | Follicular lymphoma grade III, unspecified, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C82.26 | Follicular lymphoma grade III, unspecified, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.27 | Follicular lymphoma grade III, unspecified, spleen                                        | Diagnosis | ICD-10-CM |
| C82.28 | Follicular lymphoma grade III, unspecified, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C82.29 | Follicular lymphoma grade III, unspecified, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                       | Code      |           |
|--------|-----------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                   | Category  | Code Type |
| C82.3  | Follicular lymphoma grade IIIa                                                    | Diagnosis | ICD-10-CM |
| C82.30 | Follicular lymphoma grade IIIa, unspecified site                                  | Diagnosis | ICD-10-CM |
| C82.31 | Follicular lymphoma grade IIIa, lymph nodes of head, face, and neck               | Diagnosis | ICD-10-CM |
| C82.32 | Follicular lymphoma grade IIIa, intrathoracic lymph nodes                         | Diagnosis | ICD-10-CM |
| C82.33 | Follicular lymphoma grade IIIa, intra-abdominal lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.34 | Follicular lymphoma grade IIIa, lymph nodes of axilla and upper limb              | Diagnosis | ICD-10-CM |
| C82.35 | Follicular lymphoma grade IIIa, lymph nodes of inguinal region and lower limb     | Diagnosis | ICD-10-CM |
| C82.36 | Follicular lymphoma grade IIIa, intrapelvic lymph nodes                           | Diagnosis | ICD-10-CM |
| C82.37 | Follicular lymphoma grade IIIa, spleen                                            | Diagnosis | ICD-10-CM |
| C82.38 | Follicular lymphoma grade IIIa, lymph nodes of multiple sites                     | Diagnosis | ICD-10-CM |
| C82.39 | Follicular lymphoma grade IIIa, extranodal and solid organ sites                  | Diagnosis | ICD-10-CM |
| C82.4  | Follicular lymphoma grade IIIb                                                    | Diagnosis | ICD-10-CM |
| C82.40 | Follicular lymphoma grade IIIb, unspecified site                                  | Diagnosis | ICD-10-CM |
| C82.41 | Follicular lymphoma grade IIIb, lymph nodes of head, face, and neck               | Diagnosis | ICD-10-CM |
| C82.42 | Follicular lymphoma grade IIIb, intrathoracic lymph nodes                         | Diagnosis | ICD-10-CM |
| C82.43 | Follicular lymphoma grade IIIb, intra-abdominal lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.44 | Follicular lymphoma grade IIIb, lymph nodes of axilla and upper limb              | Diagnosis | ICD-10-CM |
| C82.45 | Follicular lymphoma grade IIIb, lymph nodes of inguinal region and lower limb     | Diagnosis | ICD-10-CM |
| C82.46 | Follicular lymphoma grade IIIb, intrapelvic lymph nodes                           | Diagnosis | ICD-10-CM |
| C82.47 | Follicular lymphoma grade IIIb, spleen                                            | Diagnosis | ICD-10-CM |
| C82.48 | Follicular lymphoma grade IIIb, lymph nodes of multiple sites                     | Diagnosis | ICD-10-CM |
| C82.49 | Follicular lymphoma grade IIIb, extranodal and solid organ sites                  | Diagnosis | ICD-10-CM |
| C82.5  | Diffuse follicle center lymphoma                                                  | Diagnosis | ICD-10-CM |
| C82.50 | Diffuse follicle center lymphoma, unspecified site                                | Diagnosis | ICD-10-CM |
| C82.51 | Diffuse follicle center lymphoma, lymph nodes of head, face, and neck             | Diagnosis | ICD-10-CM |
| C82.52 | Diffuse follicle center lymphoma, intrathoracic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.53 | Diffuse follicle center lymphoma, intra-abdominal lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.54 | Diffuse follicle center lymphoma, lymph nodes of axilla and upper limb            | Diagnosis | ICD-10-CM |
| C82.55 | Diffuse follicle center lymphoma, lymph nodes of inguinal region and lower limb   | Diagnosis | ICD-10-CM |
| C82.56 | Diffuse follicle center lymphoma, intrapelvic lymph nodes                         | Diagnosis | ICD-10-CM |
| C82.57 | Diffuse follicle center lymphoma, spleen                                          | Diagnosis | ICD-10-CM |
| C82.58 | Diffuse follicle center lymphoma, lymph nodes of multiple sites                   | Diagnosis | ICD-10-CM |
| C82.59 | Diffuse follicle center lymphoma, extranodal and solid organ sites                | Diagnosis | ICD-10-CM |
| C82.6  | Cutaneous follicle center lymphoma                                                | Diagnosis | ICD-10-CM |
| C82.60 | Cutaneous follicle center lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C82.61 | Cutaneous follicle center lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C82.62 | Cutaneous follicle center lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.63 | Cutaneous follicle center lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C82.64 | Cutaneous follicle center lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C82.65 | Cutaneous follicle center lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C82.66 | Cutaneous follicle center lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.67 | Cutaneous follicle center lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C82.68 | Cutaneous follicle center lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                       | Code      |           |
|--------|-----------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                   | Category  | Code Type |
| C82.69 | Cutaneous follicle center lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C82.8  | Other types of follicular lymphoma                                                | Diagnosis | ICD-10-CM |
| C82.80 | Other types of follicular lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C82.81 | Other types of follicular lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C82.82 | Other types of follicular lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.83 | Other types of follicular lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C82.84 | Other types of follicular lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C82.85 | Other types of follicular lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C82.86 | Other types of follicular lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.87 | Other types of follicular lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C82.88 | Other types of follicular lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C82.89 | Other types of follicular lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C82.9  | Follicular lymphoma, unspecified                                                  | Diagnosis | ICD-10-CM |
| C82.90 | Follicular lymphoma, unspecified, unspecified site                                | Diagnosis | ICD-10-CM |
| C82.91 | Follicular lymphoma, unspecified, lymph nodes of head, face, and neck             | Diagnosis | ICD-10-CM |
| C82.92 | Follicular lymphoma, unspecified, intrathoracic lymph nodes                       | Diagnosis | ICD-10-CM |
| C82.93 | Follicular lymphoma, unspecified, intra-abdominal lymph nodes                     | Diagnosis | ICD-10-CM |
| C82.94 | Follicular lymphoma, unspecified, lymph nodes of axilla and upper limb            | Diagnosis | ICD-10-CM |
| C82.95 | Follicular lymphoma, unspecified, lymph nodes of inguinal region and lower limb   | Diagnosis | ICD-10-CM |
| C82.96 | Follicular lymphoma, unspecified, intrapelvic lymph nodes                         | Diagnosis | ICD-10-CM |
| C82.97 | Follicular lymphoma, unspecified, spleen                                          | Diagnosis | ICD-10-CM |
| C82.98 | Follicular lymphoma, unspecified, lymph nodes of multiple sites                   | Diagnosis | ICD-10-CM |
| C82.99 | Follicular lymphoma, unspecified, extranodal and solid organ sites                | Diagnosis | ICD-10-CM |
| C83    | Non-follicular lymphoma                                                           | Diagnosis | ICD-10-CM |
| C83.0  | Small cell B-cell lymphoma                                                        | Diagnosis | ICD-10-CM |
| C83.00 | Small cell B-cell lymphoma, unspecified site                                      | Diagnosis | ICD-10-CM |
| C83.01 | Small cell B-cell lymphoma, lymph nodes of head, face, and neck                   | Diagnosis | ICD-10-CM |
| C83.02 | Small cell B-cell lymphoma, intrathoracic lymph nodes                             | Diagnosis | ICD-10-CM |
| C83.03 | Small cell B-cell lymphoma, intra-abdominal lymph nodes                           | Diagnosis | ICD-10-CM |
| C83.04 | Small cell B-cell lymphoma, lymph nodes of axilla and upper limb                  | Diagnosis | ICD-10-CM |
| C83.05 | Small cell B-cell lymphoma, lymph nodes of inguinal region and lower limb         | Diagnosis | ICD-10-CM |
| C83.06 | Small cell B-cell lymphoma, intrapelvic lymph nodes                               | Diagnosis | ICD-10-CM |
| C83.07 | Small cell B-cell lymphoma, spleen                                                | Diagnosis | ICD-10-CM |
| C83.08 | Small cell B-cell lymphoma, lymph nodes of multiple sites                         | Diagnosis | ICD-10-CM |
| C83.09 | Small cell B-cell lymphoma, extranodal and solid organ sites                      | Diagnosis | ICD-10-CM |
| C83.1  | Mantle cell lymphoma                                                              | Diagnosis | ICD-10-CM |
| C83.10 | Mantle cell lymphoma, unspecified site                                            | Diagnosis | ICD-10-CM |
| C83.11 | Mantle cell lymphoma, lymph nodes of head, face, and neck                         | Diagnosis | ICD-10-CM |
| C83.12 | Mantle cell lymphoma, intrathoracic lymph nodes                                   | Diagnosis | ICD-10-CM |
| C83.13 | Mantle cell lymphoma, intra-abdominal lymph nodes                                 | Diagnosis | ICD-10-CM |
| C83.14 | Mantle cell lymphoma, lymph nodes of axilla and upper limb                        | Diagnosis | ICD-10-CM |
| C83.15 | Mantle cell lymphoma, lymph nodes of inguinal region and lower limb               | Diagnosis | ICD-10-CM |
| C83.16 | Mantle cell lymphoma, intrapelvic lymph nodes                                     | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                     | Code      |           |
|--------|---------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                 | Category  | Code Type |
| C83.17 | Mantle cell lymphoma, spleen                                                    | Diagnosis | ICD-10-CM |
| C83.18 | Mantle cell lymphoma, lymph nodes of multiple sites                             | Diagnosis | ICD-10-CM |
| C83.19 | Mantle cell lymphoma, extranodal and solid organ sites                          | Diagnosis | ICD-10-CM |
| C83.3  | Diffuse large B-cell lymphoma                                                   | Diagnosis | ICD-10-CM |
| C83.30 | Diffuse large B-cell lymphoma, unspecified site                                 | Diagnosis | ICD-10-CM |
| C83.31 | Diffuse large B-cell lymphoma, lymph nodes of head, face, and neck              | Diagnosis | ICD-10-CM |
| C83.32 | Diffuse large B-cell lymphoma, intrathoracic lymph nodes                        | Diagnosis | ICD-10-CM |
| C83.33 | Diffuse large B-cell lymphoma, intra-abdominal lymph nodes                      | Diagnosis | ICD-10-CM |
| C83.34 | Diffuse large B-cell lymphoma, lymph nodes of axilla and upper limb             | Diagnosis | ICD-10-CM |
| C83.35 | Diffuse large B-cell lymphoma, lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-10-CM |
| C83.36 | Diffuse large B-cell lymphoma, intrapelvic lymph nodes                          | Diagnosis | ICD-10-CM |
| C83.37 | Diffuse large B-cell lymphoma, spleen                                           | Diagnosis | ICD-10-CM |
| C83.38 | Diffuse large B-cell lymphoma, lymph nodes of multiple sites                    | Diagnosis | ICD-10-CM |
| C83.39 | Diffuse large B-cell lymphoma, extranodal and solid organ sites                 | Diagnosis | ICD-10-CM |
| C83.5  | Lymphoblastic (diffuse) lymphoma                                                | Diagnosis | ICD-10-CM |
| C83.50 | Lymphoblastic (diffuse) lymphoma, unspecified site                              | Diagnosis | ICD-10-CM |
| C83.51 | Lymphoblastic (diffuse) lymphoma, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C83.52 | Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C83.53 | Lymphoblastic (diffuse) lymphoma, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C83.54 | Lymphoblastic (diffuse) lymphoma, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C83.55 | Lymphoblastic (diffuse) lymphoma, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C83.56 | Lymphoblastic (diffuse) lymphoma, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C83.57 | Lymphoblastic (diffuse) lymphoma, spleen                                        | Diagnosis | ICD-10-CM |
| C83.58 | Lymphoblastic (diffuse) lymphoma, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C83.59 | Lymphoblastic (diffuse) lymphoma, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C83.7  | Burkitt lymphoma                                                                | Diagnosis | ICD-10-CM |
| C83.70 | Burkitt lymphoma, unspecified site                                              | Diagnosis | ICD-10-CM |
| C83.71 | Burkitt lymphoma, lymph nodes of head, face, and neck                           | Diagnosis | ICD-10-CM |
| C83.72 | Burkitt lymphoma, intrathoracic lymph nodes                                     | Diagnosis | ICD-10-CM |
| C83.73 | Burkitt lymphoma, intra-abdominal lymph nodes                                   | Diagnosis | ICD-10-CM |
| C83.74 | Burkitt lymphoma, lymph nodes of axilla and upper limb                          | Diagnosis | ICD-10-CM |
| C83.75 | Burkitt lymphoma, lymph nodes of inguinal region and lower limb                 | Diagnosis | ICD-10-CM |
| C83.76 | Burkitt lymphoma, intrapelvic lymph nodes                                       | Diagnosis | ICD-10-CM |
| C83.77 | Burkitt lymphoma, spleen                                                        | Diagnosis | ICD-10-CM |
| C83.78 | Burkitt lymphoma, lymph nodes of multiple sites                                 | Diagnosis | ICD-10-CM |
| C83.79 | Burkitt lymphoma, extranodal and solid organ sites                              | Diagnosis | ICD-10-CM |
| C83.8  | Other non-follicular lymphoma                                                   | Diagnosis | ICD-10-CM |
| C83.80 | Other non-follicular lymphoma, unspecified site                                 | Diagnosis | ICD-10-CM |
| C83.81 | Other non-follicular lymphoma, lymph nodes of head, face, and neck              | Diagnosis | ICD-10-CM |
| C83.82 | Other non-follicular lymphoma, intrathoracic lymph nodes                        | Diagnosis | ICD-10-CM |
| C83.83 | Other non-follicular lymphoma, intra-abdominal lymph nodes                      | Diagnosis | ICD-10-CM |
| C83.84 | Other non-follicular lymphoma, lymph nodes of axilla and upper limb             | Diagnosis | ICD-10-CM |
| C83.85 | Other non-follicular lymphoma, lymph nodes of inguinal region and lower limb    | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                            | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------|----------------------|------------------|
| C83.86      | Other non-follicular lymphoma, intrapelvic lymph nodes                                        | Diagnosis            | ICD-10-CM        |
| C83.87      | Other non-follicular lymphoma, spleen                                                         | Diagnosis            | ICD-10-CM        |
| C83.88      | Other non-follicular lymphoma, lymph nodes of multiple sites                                  | Diagnosis            | ICD-10-CM        |
| C83.89      | Other non-follicular lymphoma, extranodal and solid organ sites                               | Diagnosis            | ICD-10-CM        |
| C83.9       | Non-follicular (diffuse) lymphoma, unspecified                                                | Diagnosis            | ICD-10-CM        |
| C83.90      | Non-follicular (diffuse) lymphoma, unspecified, unspecified site                              | Diagnosis            | ICD-10-CM        |
| C83.91      | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of head, face, and neck           | Diagnosis            | ICD-10-CM        |
| C83.92      | Non-follicular (diffuse) lymphoma, unspecified, intrathoracic lymph nodes                     | Diagnosis            | ICD-10-CM        |
| C83.93      | Non-follicular (diffuse) lymphoma, unspecified, intra-abdominal lymph nodes                   | Diagnosis            | ICD-10-CM        |
| C83.94      | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of axilla and upper limb          | Diagnosis            | ICD-10-CM        |
| C83.95      | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of inguinal region and lower limb | Diagnosis            | ICD-10-CM        |
| C83.96      | Non-follicular (diffuse) lymphoma, unspecified, intrapelvic lymph nodes                       | Diagnosis            | ICD-10-CM        |
| C83.97      | Non-follicular (diffuse) lymphoma, unspecified, spleen                                        | Diagnosis            | ICD-10-CM        |
| C83.98      | Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of multiple sites                 | Diagnosis            | ICD-10-CM        |
| C83.99      | Non-follicular (diffuse) lymphoma, unspecified, extranodal and solid organ sites              | Diagnosis            | ICD-10-CM        |
| C84         | Mature T/NK-cell lymphomas                                                                    | Diagnosis            | ICD-10-CM        |
| C84.0       | Mycosis fungoides                                                                             | Diagnosis            | ICD-10-CM        |
| C84.00      | Mycosis fungoides, unspecified site                                                           | Diagnosis            | ICD-10-CM        |
| C84.01      | Mycosis fungoides, lymph nodes of head, face, and neck                                        | Diagnosis            | ICD-10-CM        |
| C84.02      | Mycosis fungoides, intrathoracic lymph nodes                                                  | Diagnosis            | ICD-10-CM        |
| C84.03      | Mycosis fungoides, intra-abdominal lymph nodes                                                | Diagnosis            | ICD-10-CM        |
| C84.04      | Mycosis fungoides, lymph nodes of axilla and upper limb                                       | Diagnosis            | ICD-10-CM        |
| C84.05      | Mycosis fungoides, lymph nodes of inguinal region and lower limb                              | Diagnosis            | ICD-10-CM        |
| C84.06      | Mycosis fungoides, intrapelvic lymph nodes                                                    | Diagnosis            | ICD-10-CM        |
| C84.07      | Mycosis fungoides, spleen                                                                     | Diagnosis            | ICD-10-CM        |
| C84.08      | Mycosis fungoides, lymph nodes of multiple sites                                              | Diagnosis            | ICD-10-CM        |
| C84.09      | Mycosis fungoides, extranodal and solid organ sites                                           | Diagnosis            | ICD-10-CM        |
| C84.1       | Sezary disease                                                                                | Diagnosis            | ICD-10-CM        |
| C84.10      | Sezary disease, unspecified site                                                              | Diagnosis            | ICD-10-CM        |
| C84.11      | Sezary disease, lymph nodes of head, face, and neck                                           | Diagnosis            | ICD-10-CM        |
| C84.12      | Sezary disease, intrathoracic lymph nodes                                                     | Diagnosis            | ICD-10-CM        |
| C84.13      | Sezary disease, intra-abdominal lymph nodes                                                   | Diagnosis            | ICD-10-CM        |
| C84.14      | Sezary disease, lymph nodes of axilla and upper limb                                          | Diagnosis            | ICD-10-CM        |
| C84.15      | Sezary disease, lymph nodes of inguinal region and lower limb                                 | Diagnosis            | ICD-10-CM        |
| C84.16      | Sezary disease, intrapelvic lymph nodes                                                       | Diagnosis            | ICD-10-CM        |
| C84.17      | Sezary disease, spleen                                                                        | Diagnosis            | ICD-10-CM        |
| C84.18      | Sezary disease, lymph nodes of multiple sites                                                 | Diagnosis            | ICD-10-CM        |
| C84.19      | Sezary disease, extranodal and solid organ sites                                              | Diagnosis            | ICD-10-CM        |
| C84.4       | Peripheral T-cell lymphoma, not classified                                                    | Diagnosis            | ICD-10-CM        |
| C84.40      | Peripheral T-cell lymphoma, not classified, unspecified site                                  | Diagnosis            | ICD-10-CM        |
| C84.41      | Peripheral T-cell lymphoma, not classified, lymph nodes of head, face, and neck               | Diagnosis            | ICD-10-CM        |
| C84.42      | Peripheral T-cell lymphoma, not classified, intrathoracic lymph nodes                         | Diagnosis            | ICD-10-CM        |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                 | Code      | Code Type |
|--------|---------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                             | Category  |           |
| C84.43 | Peripheral T-cell lymphoma, not classified, intra-abdominal lymph nodes                     | Diagnosis | ICD-10-CM |
| C84.44 | Peripheral T-cell lymphoma, not classified, lymph nodes of axilla and upper limb            | Diagnosis | ICD-10-CM |
| C84.45 | Peripheral T-cell lymphoma, not classified, lymph nodes of inguinal region and lower limb   | Diagnosis | ICD-10-CM |
| C84.46 | Peripheral T-cell lymphoma, not classified, intrapelvic lymph nodes                         | Diagnosis | ICD-10-CM |
| C84.47 | Peripheral T-cell lymphoma, not classified, spleen                                          | Diagnosis | ICD-10-CM |
| C84.48 | Peripheral T-cell lymphoma, not classified, lymph nodes of multiple sites                   | Diagnosis | ICD-10-CM |
| C84.49 | Peripheral T-cell lymphoma, not classified, extranodal and solid organ sites                | Diagnosis | ICD-10-CM |
| C84.6  | Anaplastic large cell lymphoma, ALK-positive                                                | Diagnosis | ICD-10-CM |
| C84.60 | Anaplastic large cell lymphoma, ALK-positive, unspecified site                              | Diagnosis | ICD-10-CM |
| C84.61 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C84.62 | Anaplastic large cell lymphoma, ALK-positive, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C84.63 | Anaplastic large cell lymphoma, ALK-positive, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C84.64 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C84.65 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C84.66 | Anaplastic large cell lymphoma, ALK-positive, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C84.67 | Anaplastic large cell lymphoma, ALK-positive, spleen                                        | Diagnosis | ICD-10-CM |
| C84.68 | Anaplastic large cell lymphoma, ALK-positive, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C84.69 | Anaplastic large cell lymphoma, ALK-positive, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C84.7  | Anaplastic large cell lymphoma, ALK-negative                                                | Diagnosis | ICD-10-CM |
| C84.70 | Anaplastic large cell lymphoma, ALK-negative, unspecified site                              | Diagnosis | ICD-10-CM |
| C84.71 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of head, face, and neck           | Diagnosis | ICD-10-CM |
| C84.72 | Anaplastic large cell lymphoma, ALK-negative, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C84.73 | Anaplastic large cell lymphoma, ALK-negative, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C84.74 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C84.75 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C84.76 | Anaplastic large cell lymphoma, ALK-negative, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C84.77 | Anaplastic large cell lymphoma, ALK-negative, spleen                                        | Diagnosis | ICD-10-CM |
| C84.78 | Anaplastic large cell lymphoma, ALK-negative, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C84.79 | Anaplastic large cell lymphoma, ALK-negative, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C84.9  | Mature T/NK-cell lymphomas, unspecified                                                     | Diagnosis | ICD-10-CM |
| C84.90 | Mature T/NK-cell lymphomas, unspecified, unspecified site                                   | Diagnosis | ICD-10-CM |
| C84.91 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of head, face, and neck                | Diagnosis | ICD-10-CM |
| C84.92 | Mature T/NK-cell lymphomas, unspecified, intrathoracic lymph nodes                          | Diagnosis | ICD-10-CM |
| C84.93 | Mature T/NK-cell lymphomas, unspecified, intra-abdominal lymph nodes                        | Diagnosis | ICD-10-CM |
| C84.94 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of axilla and upper limb               | Diagnosis | ICD-10-CM |
| C84.95 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of inguinal region and lower limb      | Diagnosis | ICD-10-CM |
| C84.96 | Mature T/NK-cell lymphomas, unspecified, intrapelvic lymph nodes                            | Diagnosis | ICD-10-CM |
| C84.97 | Mature T/NK-cell lymphomas, unspecified, spleen                                             | Diagnosis | ICD-10-CM |
| C84.98 | Mature T/NK-cell lymphomas, unspecified, lymph nodes of multiple sites                      | Diagnosis | ICD-10-CM |
| C84.99 | Mature T/NK-cell lymphomas, unspecified, extranodal and solid organ sites                   | Diagnosis | ICD-10-CM |
| C84.A  | Cutaneous T-cell lymphoma, unspecified                                                      | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                           | Code      |           |
|--------|---------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                       | Category  | Code Type |
| C84.A0 | Cutaneous T-cell lymphoma, unspecified, unspecified site                              | Diagnosis | ICD-10-CM |
| C84.A1 | Cutaneous T-cell lymphoma, unspecified lymph nodes of head, face, and neck            | Diagnosis | ICD-10-CM |
| C84.A2 | Cutaneous T-cell lymphoma, unspecified, intrathoracic lymph nodes                     | Diagnosis | ICD-10-CM |
| C84.A3 | Cutaneous T-cell lymphoma, unspecified, intra-abdominal lymph nodes                   | Diagnosis | ICD-10-CM |
| C84.A4 | Cutaneous T-cell lymphoma, unspecified, lymph nodes of axilla and upper limb          | Diagnosis | ICD-10-CM |
| C84.A5 | Cutaneous T-cell lymphoma, unspecified, lymph nodes of inguinal region and lower limb | Diagnosis | ICD-10-CM |
| C84.A6 | Cutaneous T-cell lymphoma, unspecified, intrapelvic lymph nodes                       | Diagnosis | ICD-10-CM |
| C84.A7 | Cutaneous T-cell lymphoma, unspecified, spleen                                        | Diagnosis | ICD-10-CM |
| C84.A8 | Cutaneous T-cell lymphoma, unspecified, lymph nodes of multiple sites                 | Diagnosis | ICD-10-CM |
| C84.A9 | Cutaneous T-cell lymphoma, unspecified, extranodal and solid organ sites              | Diagnosis | ICD-10-CM |
| C84.Z  | Other mature T/NK-cell lymphomas                                                      | Diagnosis | ICD-10-CM |
| C84.Z0 | Other mature T/NK-cell lymphomas, unspecified site                                    | Diagnosis | ICD-10-CM |
| C84.Z1 | Other mature T/NK-cell lymphomas, lymph nodes of head, face, and neck                 | Diagnosis | ICD-10-CM |
| C84.Z2 | Other mature T/NK-cell lymphomas, intrathoracic lymph nodes                           | Diagnosis | ICD-10-CM |
| C84.Z3 | Other mature T/NK-cell lymphomas, intra-abdominal lymph nodes                         | Diagnosis | ICD-10-CM |
| C84.Z4 | Other mature T/NK-cell lymphomas, lymph nodes of axilla and upper limb                | Diagnosis | ICD-10-CM |
| C84.Z5 | Other mature T/NK-cell lymphomas, lymph nodes of inguinal region and lower limb       | Diagnosis | ICD-10-CM |
| C84.Z6 | Other mature T/NK-cell lymphomas, intrapelvic lymph nodes                             | Diagnosis | ICD-10-CM |
| C84.Z7 | Other mature T/NK-cell lymphomas, spleen                                              | Diagnosis | ICD-10-CM |
| C84.Z8 | Other mature T/NK-cell lymphomas, lymph nodes of multiple sites                       | Diagnosis | ICD-10-CM |
| C84.Z9 | Other mature T/NK-cell lymphomas, extranodal and solid organ sites                    | Diagnosis | ICD-10-CM |
| C85    | Other specified and unspecified types of non-Hodgkin lymphoma                         | Diagnosis | ICD-10-CM |
| C85.1  | Unspecified B-cell lymphoma                                                           | Diagnosis | ICD-10-CM |
| C85.10 | Unspecified B-cell lymphoma, unspecified site                                         | Diagnosis | ICD-10-CM |
| C85.11 | Unspecified B-cell lymphoma, lymph nodes of head, face, and neck                      | Diagnosis | ICD-10-CM |
| C85.12 | Unspecified B-cell lymphoma, intrathoracic lymph nodes                                | Diagnosis | ICD-10-CM |
| C85.13 | Unspecified B-cell lymphoma, intra-abdominal lymph nodes                              | Diagnosis | ICD-10-CM |
| C85.14 | Unspecified B-cell lymphoma, lymph nodes of axilla and upper limb                     | Diagnosis | ICD-10-CM |
| C85.15 | Unspecified B-cell lymphoma, lymph nodes of inguinal region and lower limb            | Diagnosis | ICD-10-CM |
| C85.16 | Unspecified B-cell lymphoma, intrapelvic lymph nodes                                  | Diagnosis | ICD-10-CM |
| C85.17 | Unspecified B-cell lymphoma, spleen                                                   | Diagnosis | ICD-10-CM |
| C85.18 | Unspecified B-cell lymphoma, lymph nodes of multiple sites                            | Diagnosis | ICD-10-CM |
| C85.19 | Unspecified B-cell lymphoma, extranodal and solid organ sites                         | Diagnosis | ICD-10-CM |
| C85.2  | Mediastinal (thymic) large B-cell lymphoma                                            | Diagnosis | ICD-10-CM |
| C85.20 | Mediastinal (thymic) large B-cell lymphoma, unspecified site                          | Diagnosis | ICD-10-CM |
| C85.21 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of head, face, and neck       | Diagnosis | ICD-10-CM |
| C85.22 | Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes                 | Diagnosis | ICD-10-CM |
| C85.23 | Mediastinal (thymic) large B-cell lymphoma, intra-abdominal lymph nodes               | Diagnosis | ICD-10-CM |
| C85.24 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of axilla and upper limb      | Diagnosis | ICD-10-CM |
| C85.25 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of inguinal region and lower  | Diagnosis | ICD-10-CM |
| C85.26 | Mediastinal (thymic) large B-cell lymphoma, intrapelvic lymph nodes                   | Diagnosis | ICD-10-CM |
| C85.27 | Mediastinal (thymic) large B-cell lymphoma, spleen                                    | Diagnosis | ICD-10-CM |
| C85.28 | Mediastinal (thymic) large B-cell lymphoma, lymph nodes of multiple sites             | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                   | Code      |           |
|--------|-----------------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                               | Category  | Code Type |
| C85.29 | Mediastinal (thymic) large B-cell lymphoma, extranodal and solid organ sites                  | Diagnosis | ICD-10-CM |
| C85.8  | Other specified types of non-Hodgkin lymphoma                                                 | Diagnosis | ICD-10-CM |
| C85.80 | Other specified types of non-Hodgkin lymphoma, unspecified site                               | Diagnosis | ICD-10-CM |
| C85.81 | Other specified types of non-Hodgkin lymphoma, lymph nodes of head, face, and neck            | Diagnosis | ICD-10-CM |
| C85.82 | Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes                      | Diagnosis | ICD-10-CM |
| C85.83 | Other specified types of non-Hodgkin lymphoma, intra-abdominal lymph nodes                    | Diagnosis | ICD-10-CM |
| C85.84 | Other specified types of non-Hodgkin lymphoma, lymph nodes of axilla and upper limb           | Diagnosis | ICD-10-CM |
| C85.85 | Other specified types of non-Hodgkin lymphoma, lymph nodes of inguinal region and lower limb  | Diagnosis | ICD-10-CM |
| C85.86 | Other specified types of non-Hodgkin lymphoma, intrapelvic lymph nodes                        | Diagnosis | ICD-10-CM |
| C85.87 | Other specified types of non-Hodgkin lymphoma, spleen                                         | Diagnosis | ICD-10-CM |
| C85.88 | Other specified types of non-Hodgkin lymphoma, lymph nodes of multiple sites                  | Diagnosis | ICD-10-CM |
| C85.89 | Other specified types of non-Hodgkin lymphoma, extranodal and solid organ sites               | Diagnosis | ICD-10-CM |
| C85.9  | Non-Hodgkin lymphoma, unspecified                                                             | Diagnosis | ICD-10-CM |
| C85.90 | Non-Hodgkin lymphoma, unspecified, unspecified site                                           | Diagnosis | ICD-10-CM |
| C85.91 | Non-Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck                        | Diagnosis | ICD-10-CM |
| C85.92 | Non-Hodgkin lymphoma, unspecified, intrathoracic lymph nodes                                  | Diagnosis | ICD-10-CM |
| C85.93 | Non-Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes                                | Diagnosis | ICD-10-CM |
| C85.94 | Non-Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb                       | Diagnosis | ICD-10-CM |
| C85.95 | Non-Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb              | Diagnosis | ICD-10-CM |
| C85.96 | Non-Hodgkin lymphoma, unspecified, intrapelvic lymph nodes                                    | Diagnosis | ICD-10-CM |
| C85.97 | Non-Hodgkin lymphoma, unspecified, spleen                                                     | Diagnosis | ICD-10-CM |
| C85.98 | Non-Hodgkin lymphoma, unspecified, lymph nodes of multiple sites                              | Diagnosis | ICD-10-CM |
| C85.99 | Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites                           | Diagnosis | ICD-10-CM |
| C86    | Other specified types of T/NK-cell lymphoma                                                   | Diagnosis | ICD-10-CM |
| C86.0  | Extranodal NK/T-cell lymphoma, nasal type                                                     | Diagnosis | ICD-10-CM |
| C86.1  | Hepatosplenic T-cell lymphoma                                                                 | Diagnosis | ICD-10-CM |
| C86.2  | Enteropathy-type (intestinal) T-cell lymphoma                                                 | Diagnosis | ICD-10-CM |
| C86.3  | Subcutaneous panniculitis-like T-cell lymphoma                                                | Diagnosis | ICD-10-CM |
| C86.4  | Blastic NK-cell lymphoma                                                                      | Diagnosis | ICD-10-CM |
| C86.5  | Angioimmunoblastic T-cell lymphoma                                                            | Diagnosis | ICD-10-CM |
| C86.6  | Primary cutaneous CD30-positive T-cell proliferations                                         | Diagnosis | ICD-10-CM |
| C88    | Malignant immunoproliferative diseases and certain other B-cell lymphomas                     | Diagnosis | ICD-10-CM |
| C88.0  | Waldenstrom macroglobulinemia                                                                 | Diagnosis | ICD-10-CM |
| C88.2  | Heavy chain disease                                                                           | Diagnosis | ICD-10-CM |
| C88.3  | Immunoproliferative small intestinal disease                                                  | Diagnosis | ICD-10-CM |
| C88.4  | Extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue [MALT-lymphoma] | Diagnosis | ICD-10-CM |
| C88.8  | Other malignant immunoproliferative diseases                                                  | Diagnosis | ICD-10-CM |
| C88.9  | Malignant immunoproliferative disease, unspecified                                            | Diagnosis | ICD-10-CM |
| C90    | Multiple myeloma and malignant plasma cell neoplasms                                          | Diagnosis | ICD-10-CM |
| C90.0  | Multiple myeloma                                                                              | Diagnosis | ICD-10-CM |
| C90.00 | Multiple myeloma not having achieved remission                                                | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                      | Code      |           |
|--------|----------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                  | Category  | Code Type |
| C90.01 | Multiple myeloma in remission                                                    | Diagnosis | ICD-10-CM |
| C90.02 | Multiple myeloma in relapse                                                      | Diagnosis | ICD-10-CM |
| C90.1  | Plasma cell leukemia                                                             | Diagnosis | ICD-10-CM |
| C90.10 | Plasma cell leukemia not having achieved remission                               | Diagnosis | ICD-10-CM |
| C90.11 | Plasma cell leukemia in remission                                                | Diagnosis | ICD-10-CM |
| C90.12 | Plasma cell leukemia in relapse                                                  | Diagnosis | ICD-10-CM |
| C90.2  | Extramedullary plasmacytoma                                                      | Diagnosis | ICD-10-CM |
| C90.20 | Extramedullary plasmacytoma not having achieved remission                        | Diagnosis | ICD-10-CM |
| C90.21 | Extramedullary plasmacytoma in remission                                         | Diagnosis | ICD-10-CM |
| C90.22 | Extramedullary plasmacytoma in relapse                                           | Diagnosis | ICD-10-CM |
| C90.3  | Solitary plasmacytoma                                                            | Diagnosis | ICD-10-CM |
| C90.30 | Solitary plasmacytoma not having achieved remission                              | Diagnosis | ICD-10-CM |
| C90.31 | Solitary plasmacytoma in remission                                               | Diagnosis | ICD-10-CM |
| C90.32 | Solitary plasmacytoma in relapse                                                 | Diagnosis | ICD-10-CM |
| C91    | Lymphoid leukemia                                                                | Diagnosis | ICD-10-CM |
| C91.0  | Acute lymphoblastic leukemia [ALL]                                               | Diagnosis | ICD-10-CM |
| C91.00 | Acute lymphoblastic leukemia not having achieved remission                       | Diagnosis | ICD-10-CM |
| C91.01 | Acute lymphoblastic leukemia, in remission                                       | Diagnosis | ICD-10-CM |
| C91.02 | Acute lymphoblastic leukemia, in relapse                                         | Diagnosis | ICD-10-CM |
| C91.1  | Chronic lymphocytic leukemia of B-cell type                                      | Diagnosis | ICD-10-CM |
| C91.10 | Chronic lymphocytic leukemia of B-cell type not having achieved remission        | Diagnosis | ICD-10-CM |
| C91.11 | Chronic lymphocytic leukemia of B-cell type in remission                         | Diagnosis | ICD-10-CM |
| C91.12 | Chronic lymphocytic leukemia of B-cell type in relapse                           | Diagnosis | ICD-10-CM |
| C91.3  | Prolymphocytic leukemia of B-cell type                                           | Diagnosis | ICD-10-CM |
| C91.30 | Prolymphocytic leukemia of B-cell type not having achieved remission             | Diagnosis | ICD-10-CM |
| C91.31 | Prolymphocytic leukemia of B-cell type, in remission                             | Diagnosis | ICD-10-CM |
| C91.32 | Prolymphocytic leukemia of B-cell type, in relapse                               | Diagnosis | ICD-10-CM |
| C91.4  | Hairy cell leukemia                                                              | Diagnosis | ICD-10-CM |
| C91.40 | Hairy cell leukemia not having achieved remission                                | Diagnosis | ICD-10-CM |
| C91.41 | Hairy cell leukemia, in remission                                                | Diagnosis | ICD-10-CM |
| C91.42 | Hairy cell leukemia, in relapse                                                  | Diagnosis | ICD-10-CM |
| C91.5  | Adult T-cell lymphoma/leukemia (HTLV-1-associated)                               | Diagnosis | ICD-10-CM |
| C91.50 | Adult T-cell lymphoma/leukemia (HTLV-1-associated) not having achieved remission | Diagnosis | ICD-10-CM |
| C91.51 | Adult T-cell lymphoma/leukemia (HTLV-1-associated), in remission                 | Diagnosis | ICD-10-CM |
| C91.52 | Adult T-cell lymphoma/leukemia (HTLV-1-associated), in relapse                   | Diagnosis | ICD-10-CM |
| C91.6  | Prolymphocytic leukemia of T-cell type                                           | Diagnosis | ICD-10-CM |
| C91.60 | Prolymphocytic leukemia of T-cell type not having achieved remission             | Diagnosis | ICD-10-CM |
| C91.61 | Prolymphocytic leukemia of T-cell type, in remission                             | Diagnosis | ICD-10-CM |
| C91.62 | Prolymphocytic leukemia of T-cell type, in relapse                               | Diagnosis | ICD-10-CM |
| C91.9  | Lymphoid leukemia, unspecified                                                   | Diagnosis | ICD-10-CM |
| C91.90 | Lymphoid leukemia, unspecified not having achieved remission                     | Diagnosis | ICD-10-CM |
| C91.91 | Lymphoid leukemia, unspecified, in remission                                     | Diagnosis | ICD-10-CM |
| C91.92 | Lymphoid leukemia, unspecified, in relapse                                       | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                        | Code      |           |
|--------|------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                    | Category  | Code Type |
| C91.A  | Mature B-cell leukemia Burkitt-type                                                | Diagnosis | ICD-10-CM |
| C91.A0 | Mature B-cell leukemia Burkitt-type not having achieved remission                  | Diagnosis | ICD-10-CM |
| C91.A1 | Mature B-cell leukemia Burkitt-type, in remission                                  | Diagnosis | ICD-10-CM |
| C91.A2 | Mature B-cell leukemia Burkitt-type, in relapse                                    | Diagnosis | ICD-10-CM |
| C91.Z  | Other lymphoid leukemia                                                            | Diagnosis | ICD-10-CM |
| C91.Z0 | Other lymphoid leukemia not having achieved remission                              | Diagnosis | ICD-10-CM |
| C91.Z1 | Other lymphoid leukemia, in remission                                              | Diagnosis | ICD-10-CM |
| C91.Z2 | Other lymphoid leukemia, in relapse                                                | Diagnosis | ICD-10-CM |
| C92    | Myeloid leukemia                                                                   | Diagnosis | ICD-10-CM |
| C92.0  | Acute myeloblastic leukemia                                                        | Diagnosis | ICD-10-CM |
| C92.00 | Acute myeloblastic leukemia, not having achieved remission                         | Diagnosis | ICD-10-CM |
| C92.01 | Acute myeloblastic leukemia, in remission                                          | Diagnosis | ICD-10-CM |
| C92.02 | Acute myeloblastic leukemia, in relapse                                            | Diagnosis | ICD-10-CM |
| C92.1  | Chronic myeloid leukemia, BCR/ABL-positive                                         | Diagnosis | ICD-10-CM |
| C92.10 | Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission          | Diagnosis | ICD-10-CM |
| C92.11 | Chronic myeloid leukemia, BCR/ABL-positive, in remission                           | Diagnosis | ICD-10-CM |
| C92.12 | Chronic myeloid leukemia, BCR/ABL-positive, in relapse                             | Diagnosis | ICD-10-CM |
| C92.2  | Atypical chronic myeloid leukemia, BCR/ABL-negative                                | Diagnosis | ICD-10-CM |
| C92.20 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission | Diagnosis | ICD-10-CM |
| C92.21 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in remission                  | Diagnosis | ICD-10-CM |
| C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse                    | Diagnosis | ICD-10-CM |
| C92.3  | Myeloid sarcoma                                                                    | Diagnosis | ICD-10-CM |
| C92.30 | Myeloid sarcoma, not having achieved remission                                     | Diagnosis | ICD-10-CM |
| C92.31 | Myeloid sarcoma, in remission                                                      | Diagnosis | ICD-10-CM |
| C92.32 | Myeloid sarcoma, in relapse                                                        | Diagnosis | ICD-10-CM |
| C92.4  | Acute promyelocytic leukemia                                                       | Diagnosis | ICD-10-CM |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission                        | Diagnosis | ICD-10-CM |
| C92.41 | Acute promyelocytic leukemia, in remission                                         | Diagnosis | ICD-10-CM |
| C92.42 | Acute promyelocytic leukemia, in relapse                                           | Diagnosis | ICD-10-CM |
| C92.5  | Acute myelomonocytic leukemia                                                      | Diagnosis | ICD-10-CM |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission                       | Diagnosis | ICD-10-CM |
| C92.51 | Acute myelomonocytic leukemia, in remission                                        | Diagnosis | ICD-10-CM |
| C92.52 | Acute myelomonocytic leukemia, in relapse                                          | Diagnosis | ICD-10-CM |
| C92.6  | Acute myeloid leukemia with 11q23-abnormality                                      | Diagnosis | ICD-10-CM |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission        | Diagnosis | ICD-10-CM |
| C92.61 | Acute myeloid leukemia with 11q23-abnormality in remission                         | Diagnosis | ICD-10-CM |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse                           | Diagnosis | ICD-10-CM |
| C92.9  | Myeloid leukemia, unspecified                                                      | Diagnosis | ICD-10-CM |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission                       | Diagnosis | ICD-10-CM |
| C92.91 | Myeloid leukemia, unspecified in remission                                         | Diagnosis | ICD-10-CM |
| C92.92 | Myeloid leukemia, unspecified in relapse                                           | Diagnosis | ICD-10-CM |
| C92.A  | Acute myeloid leukemia with multilineage dysplasia                                 | Diagnosis | ICD-10-CM |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission  | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                         | Code      |           |
|--------|---------------------------------------------------------------------|-----------|-----------|
|        |                                                                     | Category  | Code Type |
| C92.A1 | Acute myeloid leukemia with multilineage dysplasia, in remission    | Diagnosis | ICD-10-CM |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse      | Diagnosis | ICD-10-CM |
| C92.Z  | Other myeloid leukemia                                              | Diagnosis | ICD-10-CM |
| C92.Z0 | Other myeloid leukemia not having achieved remission                | Diagnosis | ICD-10-CM |
| C92.Z1 | Other myeloid leukemia, in remission                                | Diagnosis | ICD-10-CM |
| C92.Z2 | Other myeloid leukemia, in relapse                                  | Diagnosis | ICD-10-CM |
| C93    | Monocytic leukemia                                                  | Diagnosis | ICD-10-CM |
| C93.0  | Acute monoblastic/monocytic leukemia                                | Diagnosis | ICD-10-CM |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission | Diagnosis | ICD-10-CM |
| C93.01 | Acute monoblastic/monocytic leukemia, in remission                  | Diagnosis | ICD-10-CM |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse                    | Diagnosis | ICD-10-CM |
| C93.1  | Chronic myelomonocytic leukemia                                     | Diagnosis | ICD-10-CM |
| C93.10 | Chronic myelomonocytic leukemia not having achieved remission       | Diagnosis | ICD-10-CM |
| C93.11 | Chronic myelomonocytic leukemia, in remission                       | Diagnosis | ICD-10-CM |
| C93.12 | Chronic myelomonocytic leukemia, in relapse                         | Diagnosis | ICD-10-CM |
| C93.3  | Juvenile myelomonocytic leukemia                                    | Diagnosis | ICD-10-CM |
| C93.30 | Juvenile myelomonocytic leukemia, not having achieved remission     | Diagnosis | ICD-10-CM |
| C93.31 | Juvenile myelomonocytic leukemia, in remission                      | Diagnosis | ICD-10-CM |
| C93.32 | Juvenile myelomonocytic leukemia, in relapse                        | Diagnosis | ICD-10-CM |
| C93.9  | Monocytic leukemia, unspecified                                     | Diagnosis | ICD-10-CM |
| C93.90 | Monocytic leukemia, unspecified, not having achieved remission      | Diagnosis | ICD-10-CM |
| C93.91 | Monocytic leukemia, unspecified in remission                        | Diagnosis | ICD-10-CM |
| C93.92 | Monocytic leukemia, unspecified in relapse                          | Diagnosis | ICD-10-CM |
| C93.Z  | Other monocytic leukemia                                            | Diagnosis | ICD-10-CM |
| C93.Z0 | Other monocytic leukemia, not having achieved remission             | Diagnosis | ICD-10-CM |
| C93.Z1 | Other monocytic leukemia, in remission                              | Diagnosis | ICD-10-CM |
| C93.Z2 | Other monocytic leukemia, in relapse                                | Diagnosis | ICD-10-CM |
| C94    | Other leukemias of specified cell type                              | Diagnosis | ICD-10-CM |
| C94.0  | Acute erythroid leukemia                                            | Diagnosis | ICD-10-CM |
| C94.00 | Acute erythroid leukemia, not having achieved remission             | Diagnosis | ICD-10-CM |
| C94.01 | Acute erythroid leukemia, in remission                              | Diagnosis | ICD-10-CM |
| C94.02 | Acute erythroid leukemia, in relapse                                | Diagnosis | ICD-10-CM |
| C94.2  | Acute megakaryoblastic leukemia                                     | Diagnosis | ICD-10-CM |
| C94.20 | Acute megakaryoblastic leukemia not having achieved remission       | Diagnosis | ICD-10-CM |
| C94.21 | Acute megakaryoblastic leukemia, in remission                       | Diagnosis | ICD-10-CM |
| C94.22 | Acute megakaryoblastic leukemia, in relapse                         | Diagnosis | ICD-10-CM |
| C94.3  | Mast cell leukemia                                                  | Diagnosis | ICD-10-CM |
| C94.30 | Mast cell leukemia not having achieved remission                    | Diagnosis | ICD-10-CM |
| C94.31 | Mast cell leukemia, in remission                                    | Diagnosis | ICD-10-CM |
| C94.32 | Mast cell leukemia, in relapse                                      | Diagnosis | ICD-10-CM |
| C94.4  | Acute panmyelosis with myelofibrosis                                | Diagnosis | ICD-10-CM |
| C94.40 | Acute panmyelosis with myelofibrosis not having achieved remission  | Diagnosis | ICD-10-CM |
| C94.41 | Acute panmyelosis with myelofibrosis, in remission                  | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                       | Code      |           |
|---------|-----------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                   | Category  | Code Type |
| C94.42  | Acute panmyelosis with myelofibrosis, in relapse                                  | Diagnosis | ICD-10-CM |
| C94.6   | Myelodysplastic disease, not classified                                           | Diagnosis | ICD-10-CM |
| C94.8   | Other specified leukemias                                                         | Diagnosis | ICD-10-CM |
| C94.80  | Other specified leukemias not having achieved remission                           | Diagnosis | ICD-10-CM |
| C94.81  | Other specified leukemias, in remission                                           | Diagnosis | ICD-10-CM |
| C94.82  | Other specified leukemias, in relapse                                             | Diagnosis | ICD-10-CM |
| C95     | Leukemia of unspecified cell type                                                 | Diagnosis | ICD-10-CM |
| C95.0   | Acute leukemia of unspecified cell type                                           | Diagnosis | ICD-10-CM |
| C95.00  | Acute leukemia of unspecified cell type not having achieved remission             | Diagnosis | ICD-10-CM |
| C95.01  | Acute leukemia of unspecified cell type, in remission                             | Diagnosis | ICD-10-CM |
| C95.02  | Acute leukemia of unspecified cell type, in relapse                               | Diagnosis | ICD-10-CM |
| C95.1   | Chronic leukemia of unspecified cell type                                         | Diagnosis | ICD-10-CM |
| C95.10  | Chronic leukemia of unspecified cell type not having achieved remission           | Diagnosis | ICD-10-CM |
| C95.11  | Chronic leukemia of unspecified cell type, in remission                           | Diagnosis | ICD-10-CM |
| C95.12  | Chronic leukemia of unspecified cell type, in relapse                             | Diagnosis | ICD-10-CM |
| C95.9   | Leukemia, unspecified                                                             | Diagnosis | ICD-10-CM |
| C95.90  | Leukemia, unspecified not having achieved remission                               | Diagnosis | ICD-10-CM |
| C95.91  | Leukemia, unspecified, in remission                                               | Diagnosis | ICD-10-CM |
| C95.92  | Leukemia, unspecified, in relapse                                                 | Diagnosis | ICD-10-CM |
| C96     | Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related  | Diagnosis | ICD-10-CM |
| C96.0   | Multifocal and multisystemic (disseminated) Langerhans-cell histiocytosis         | Diagnosis | ICD-10-CM |
| C96.2   | Malignant mast cell neoplasm                                                      | Diagnosis | ICD-10-CM |
| C96.20  | Malignant mast cell neoplasm, unspecified                                         | Diagnosis | ICD-10-CM |
| C96.21  | Aggressive systemic mastocytosis                                                  | Diagnosis | ICD-10-CM |
| C96.22  | Mast cell sarcoma                                                                 | Diagnosis | ICD-10-CM |
| C96.29  | Other malignant mast cell neoplasm                                                | Diagnosis | ICD-10-CM |
| C96.4   | Sarcoma of dendritic cells (accessory cells)                                      | Diagnosis | ICD-10-CM |
| C96.5   | Multifocal and unisystemic Langerhans-cell histiocytosis                          | Diagnosis | ICD-10-CM |
| C96.6   | Unifocal Langerhans-cell histiocytosis                                            | Diagnosis | ICD-10-CM |
| C96.9   | Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified     | Diagnosis | ICD-10-CM |
| C96.A   | Histiocytic sarcoma                                                               | Diagnosis | ICD-10-CM |
| C96.Z   | Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue | Diagnosis | ICD-10-CM |
| D17.71  | Benign lipomatous neoplasm of kidney                                              | Diagnosis | ICD-10-CM |
| D30.0   | Benign neoplasm of kidney                                                         | Diagnosis | ICD-10-CM |
| D30.00  | Benign neoplasm of unspecified kidney                                             | Diagnosis | ICD-10-CM |
| D30.01  | Benign neoplasm of right kidney                                                   | Diagnosis | ICD-10-CM |
| D30.02  | Benign neoplasm of left kidney                                                    | Diagnosis | ICD-10-CM |
| D30.1   | Benign neoplasm of renal pelvis                                                   | Diagnosis | ICD-10-CM |
| D30.10  | Benign neoplasm of unspecified renal pelvis                                       | Diagnosis | ICD-10-CM |
| D30.11  | Benign neoplasm of right renal pelvis                                             | Diagnosis | ICD-10-CM |
| D30.12  | Benign neoplasm of left renal pelvis                                              | Diagnosis | ICD-10-CM |
| D3A.093 | Benign carcinoid tumor of the kidney                                              | Diagnosis | ICD-10-CM |
| D41.00  | Neoplasm of uncertain behavior of unspecified kidney                              | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                                                 | Code      |           |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                                                             | Category  | Code Type |
| D41.01  | Neoplasm of uncertain behavior of right kidney                                                                                              | Diagnosis | ICD-10-CM |
| D41.02  | Neoplasm of uncertain behavior of left kidney                                                                                               | Diagnosis | ICD-10-CM |
| D41.10  | Neoplasm of uncertain behavior of unspecified renal pelvis                                                                                  | Diagnosis | ICD-10-CM |
| D41.11  | Neoplasm of uncertain behavior of right renal pelvis                                                                                        | Diagnosis | ICD-10-CM |
| D41.12  | Neoplasm of uncertain behavior of left renal pelvis                                                                                         | Diagnosis | ICD-10-CM |
| D45     | Polycythemia vera                                                                                                                           | Diagnosis | ICD-10-CM |
| D49.511 | Neoplasm of unspecified behavior of right kidney                                                                                            | Diagnosis | ICD-10-CM |
| D49.512 | Neoplasm of unspecified behavior of left kidney                                                                                             | Diagnosis | ICD-10-CM |
| D49.519 | Neoplasm of unspecified behavior of unspecified kidney                                                                                      | Diagnosis | ICD-10-CM |
| O9A     | Maternal malignant neoplasms, traumatic injuries and abuse classifiable elsewhere but complicating pregnancy, childbirth and the puerperium | Diagnosis | ICD-10-CM |
| O9A.1   | Malignant neoplasm complicating pregnancy, childbirth and the puerperium                                                                    | Diagnosis | ICD-10-CM |
| O9A.11  | Malignant neoplasm complicating pregnancy                                                                                                   | Diagnosis | ICD-10-CM |
| O9A.111 | Malignant neoplasm complicating pregnancy, first trimester                                                                                  | Diagnosis | ICD-10-CM |
| O9A.112 | Malignant neoplasm complicating pregnancy, second trimester                                                                                 | Diagnosis | ICD-10-CM |
| O9A.113 | Malignant neoplasm complicating pregnancy, third trimester                                                                                  | Diagnosis | ICD-10-CM |
| O9A.119 | Malignant neoplasm complicating pregnancy, unspecified trimester                                                                            | Diagnosis | ICD-10-CM |
| O9A.12  | Malignant neoplasm complicating childbirth                                                                                                  | Diagnosis | ICD-10-CM |
| O9A.13  | Malignant neoplasm complicating the puerperium                                                                                              | Diagnosis | ICD-10-CM |
| V10     | Personal history of malignant neoplasm                                                                                                      | Diagnosis | ICD-9-CM  |
| V10.0   | Personal history of malignant neoplasm of gastrointestinal tract                                                                            | Diagnosis | ICD-9-CM  |
| V10.00  | Personal history of malignant neoplasm of unspecified site in gastrointestinal tract                                                        | Diagnosis | ICD-9-CM  |
| V10.01  | Personal history of malignant neoplasm of tongue                                                                                            | Diagnosis | ICD-9-CM  |
| V10.02  | Personal history of malignant neoplasm of other and unspecified parts of oral cavity and pharynx                                            | Diagnosis | ICD-9-CM  |
| V10.03  | Personal history of malignant neoplasm of esophagus                                                                                         | Diagnosis | ICD-9-CM  |
| V10.04  | Personal history of malignant neoplasm of stomach                                                                                           | Diagnosis | ICD-9-CM  |
| V10.05  | Personal history of malignant neoplasm of large intestine                                                                                   | Diagnosis | ICD-9-CM  |
| V10.06  | Personal history of malignant neoplasm of rectum, rectosigmoid junction, and anus                                                           | Diagnosis | ICD-9-CM  |
| V10.07  | Personal history of malignant neoplasm of liver                                                                                             | Diagnosis | ICD-9-CM  |
| V10.09  | Personal history of malignant neoplasm of other site in gastrointestinal tract                                                              | Diagnosis | ICD-9-CM  |
| V10.1   | Personal history of malignant neoplasm of trachea, bronchus, and lung                                                                       | Diagnosis | ICD-9-CM  |
| V10.11  | Personal history of malignant neoplasm of bronchus and lung                                                                                 | Diagnosis | ICD-9-CM  |
| V10.12  | Personal history of malignant neoplasm of trachea                                                                                           | Diagnosis | ICD-9-CM  |
| V10.2   | Personal history of malignant neoplasm of other respiratory and intrathoracic organs                                                        | Diagnosis | ICD-9-CM  |
| V10.20  | Personal history of malignant neoplasm of unspecified respiratory organ                                                                     | Diagnosis | ICD-9-CM  |
| V10.21  | Personal history of malignant neoplasm of larynx                                                                                            | Diagnosis | ICD-9-CM  |
| V10.22  | Personal history of malignant neoplasm of nasal cavities, middle ear, and accessory                                                         | Diagnosis | ICD-9-CM  |
| V10.29  | Personal history of malignant neoplasm of other respiratory and intrathoracic organs                                                        | Diagnosis | ICD-9-CM  |
| V10.3   | Personal history of malignant neoplasm of breast                                                                                            | Diagnosis | ICD-9-CM  |
| V10.4   | Personal history of malignant neoplasm of genital organs                                                                                    | Diagnosis | ICD-9-CM  |
| V10.40  | Personal history of malignant neoplasm of unspecified female genital organ                                                                  | Diagnosis | ICD-9-CM  |
| V10.41  | Personal history of malignant neoplasm of cervix uteri                                                                                      | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                             | Code      |           |
|--------|-----------------------------------------------------------------------------------------|-----------|-----------|
|        |                                                                                         | Category  | Code Type |
| V10.42 | Personal history of malignant neoplasm of other parts of uterus                         | Diagnosis | ICD-9-CM  |
| V10.43 | Personal history of malignant neoplasm of ovary                                         | Diagnosis | ICD-9-CM  |
| V10.44 | Personal history of malignant neoplasm of other female genital organs                   | Diagnosis | ICD-9-CM  |
| V10.45 | Personal history of malignant neoplasm of unspecified male genital organ                | Diagnosis | ICD-9-CM  |
| V10.46 | Personal history of malignant neoplasm of prostate                                      | Diagnosis | ICD-9-CM  |
| V10.47 | Personal history of malignant neoplasm of testis                                        | Diagnosis | ICD-9-CM  |
| V10.48 | Personal history of malignant neoplasm of epididymis                                    | Diagnosis | ICD-9-CM  |
| V10.49 | Personal history of malignant neoplasm of other male genital organs                     | Diagnosis | ICD-9-CM  |
| V10.5  | Personal history of malignant neoplasm of urinary organs                                | Diagnosis | ICD-9-CM  |
| V10.50 | Personal history of malignant neoplasm of unspecified urinary organ                     | Diagnosis | ICD-9-CM  |
| V10.51 | Personal history of malignant neoplasm of bladder                                       | Diagnosis | ICD-9-CM  |
| V10.52 | Personal history of malignant neoplasm of kidney                                        | Diagnosis | ICD-9-CM  |
| V10.53 | Personal history of malignant neoplasm, renal pelvis                                    | Diagnosis | ICD-9-CM  |
| V10.59 | Personal history of malignant neoplasm of other urinary organ                           | Diagnosis | ICD-9-CM  |
| V10.60 | Personal history of unspecified leukemia                                                | Diagnosis | ICD-9-CM  |
| V10.61 | Personal history of lymphoid leukemia                                                   | Diagnosis | ICD-9-CM  |
| V10.62 | Personal history of myeloid leukemia                                                    | Diagnosis | ICD-9-CM  |
| V10.63 | Personal history of monocytic leukemia                                                  | Diagnosis | ICD-9-CM  |
| V10.69 | Personal history of other leukemia                                                      | Diagnosis | ICD-9-CM  |
| V10.7  | Personal history of other lymphatic and hematopoietic neoplasms                         | Diagnosis | ICD-9-CM  |
| V10.71 | Personal history of lymphosarcoma and reticulosarcoma                                   | Diagnosis | ICD-9-CM  |
| V10.72 | Personal history of Hodgkin's disease                                                   | Diagnosis | ICD-9-CM  |
| V10.79 | Personal history of other lymphatic and hematopoietic neoplasm                          | Diagnosis | ICD-9-CM  |
| V10.8  | Personal history of malignant neoplasm of other sites                                   | Diagnosis | ICD-9-CM  |
| V10.81 | Personal history of malignant neoplasm of bone                                          | Diagnosis | ICD-9-CM  |
| V10.82 | Personal history of malignant melanoma of skin                                          | Diagnosis | ICD-9-CM  |
| V10.83 | Personal history of other malignant neoplasm of skin                                    | Diagnosis | ICD-9-CM  |
| V10.84 | Personal history of malignant neoplasm of eye                                           | Diagnosis | ICD-9-CM  |
| V10.85 | Personal history of malignant neoplasm of brain                                         | Diagnosis | ICD-9-CM  |
| V10.86 | Personal history of malignant neoplasm of other parts of nervous system                 | Diagnosis | ICD-9-CM  |
| V10.87 | Personal history of malignant neoplasm of thyroid                                       | Diagnosis | ICD-9-CM  |
| V10.88 | Personal history of malignant neoplasm of other endocrine glands and related structures | Diagnosis | ICD-9-CM  |
| V10.89 | Personal history of malignant neoplasm of other site                                    | Diagnosis | ICD-9-CM  |
| V10.9  | Other and unspecified personal history of malignant neoplasm                            | Diagnosis | ICD-9-CM  |
| V10.90 | Personal history of unspecified malignant neoplasm                                      | Diagnosis | ICD-9-CM  |
| V10.91 | Personal history of malignant neuroendocrine tumor                                      | Diagnosis | ICD-9-CM  |
| V13.89 | Personal history of other specified diseases                                            | Diagnosis | ICD-9-CM  |
| V87.41 | Personal history of antineoplastic chemotherapy                                         | Diagnosis | ICD-9-CM  |
| Z85    | Personal history of malignant neoplasm                                                  | Diagnosis | ICD-10-CM |
| Z85.0  | Personal history of malignant neoplasm of digestive organs                              | Diagnosis | ICD-10-CM |
| Z85.00 | Personal history of malignant neoplasm of unspecified digestive organ                   | Diagnosis | ICD-10-CM |
| Z85.01 | Personal history of malignant neoplasm of esophagus                                     | Diagnosis | ICD-10-CM |
| Z85.02 | Personal history of malignant neoplasm of stomach                                       | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                             | Code      |           |
|---------|-----------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                         | Category  | Code Type |
| Z85.020 | Personal history of malignant carcinoid tumor of stomach                                | Diagnosis | ICD-10-CM |
| Z85.028 | Personal history of other malignant neoplasm of stomach                                 | Diagnosis | ICD-10-CM |
| Z85.03  | Personal history of malignant neoplasm of large intestine                               | Diagnosis | ICD-10-CM |
| Z85.030 | Personal history of malignant carcinoid tumor of large intestine                        | Diagnosis | ICD-10-CM |
| Z85.038 | Personal history of other malignant neoplasm of large intestine                         | Diagnosis | ICD-10-CM |
| Z85.04  | Personal history of malignant neoplasm of rectum, rectosigmoid junction, and anus       | Diagnosis | ICD-10-CM |
| Z85.040 | Personal history of malignant carcinoid tumor of rectum                                 | Diagnosis | ICD-10-CM |
| Z85.048 | Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus | Diagnosis | ICD-10-CM |
| Z85.05  | Personal history of malignant neoplasm of liver                                         | Diagnosis | ICD-10-CM |
| Z85.06  | Personal history of malignant neoplasm of small intestine                               | Diagnosis | ICD-10-CM |
| Z85.060 | Personal history of malignant carcinoid tumor of small intestine                        | Diagnosis | ICD-10-CM |
| Z85.068 | Personal history of other malignant neoplasm of small intestine                         | Diagnosis | ICD-10-CM |
| Z85.07  | Personal history of malignant neoplasm of pancreas                                      | Diagnosis | ICD-10-CM |
| Z85.09  | Personal history of malignant neoplasm of other digestive organs                        | Diagnosis | ICD-10-CM |
| Z85.1   | Personal history of malignant neoplasm of trachea, bronchus and lung                    | Diagnosis | ICD-10-CM |
| Z85.11  | Personal history of malignant neoplasm of bronchus and lung                             | Diagnosis | ICD-10-CM |
| Z85.110 | Personal history of malignant carcinoid tumor of bronchus and lung                      | Diagnosis | ICD-10-CM |
| Z85.118 | Personal history of other malignant neoplasm of bronchus and lung                       | Diagnosis | ICD-10-CM |
| Z85.12  | Personal history of malignant neoplasm of trachea                                       | Diagnosis | ICD-10-CM |
| Z85.2   | Personal history of malignant neoplasm of other respiratory and intrathoracic organs    | Diagnosis | ICD-10-CM |
| Z85.20  | Personal history of malignant neoplasm of unspecified respiratory organ                 | Diagnosis | ICD-10-CM |
| Z85.21  | Personal history of malignant neoplasm of larynx                                        | Diagnosis | ICD-10-CM |
| Z85.22  | Personal history of malignant neoplasm of nasal cavities, middle ear, and accessory     | Diagnosis | ICD-10-CM |
| Z85.23  | Personal history of malignant neoplasm of thymus                                        | Diagnosis | ICD-10-CM |
| Z85.230 | Personal history of malignant carcinoid tumor of thymus                                 | Diagnosis | ICD-10-CM |
| Z85.238 | Personal history of other malignant neoplasm of thymus                                  | Diagnosis | ICD-10-CM |
| Z85.29  | Personal history of malignant neoplasm of other respiratory and intrathoracic organs    | Diagnosis | ICD-10-CM |
| Z85.3   | Personal history of malignant neoplasm of breast                                        | Diagnosis | ICD-10-CM |
| Z85.4   | Personal history of malignant neoplasm of genital organs                                | Diagnosis | ICD-10-CM |
| Z85.40  | Personal history of malignant neoplasm of unspecified female genital organ              | Diagnosis | ICD-10-CM |
| Z85.41  | Personal history of malignant neoplasm of cervix uteri                                  | Diagnosis | ICD-10-CM |
| Z85.42  | Personal history of malignant neoplasm of other parts of uterus                         | Diagnosis | ICD-10-CM |
| Z85.43  | Personal history of malignant neoplasm of ovary                                         | Diagnosis | ICD-10-CM |
| Z85.44  | Personal history of malignant neoplasm of other female genital organs                   | Diagnosis | ICD-10-CM |
| Z85.45  | Personal history of malignant neoplasm of unspecified male genital organ                | Diagnosis | ICD-10-CM |
| Z85.46  | Personal history of malignant neoplasm of prostate                                      | Diagnosis | ICD-10-CM |
| Z85.47  | Personal history of malignant neoplasm of testis                                        | Diagnosis | ICD-10-CM |
| Z85.48  | Personal history of malignant neoplasm of epididymis                                    | Diagnosis | ICD-10-CM |
| Z85.49  | Personal history of malignant neoplasm of other male genital organs                     | Diagnosis | ICD-10-CM |
| Z85.5   | Personal history of malignant neoplasm of urinary tract                                 | Diagnosis | ICD-10-CM |
| Z85.50  | Personal history of malignant neoplasm of unspecified urinary tract organ               | Diagnosis | ICD-10-CM |
| Z85.51  | Personal history of malignant neoplasm of bladder                                       | Diagnosis | ICD-10-CM |
| Z85.52  | Personal history of malignant neoplasm of kidney                                        | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                                                                                                                                                                | Code      | Code Type |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                                                                                                                                                                            | Category  |           |
| Z85.520 | Personal history of malignant carcinoid tumor of kidney                                                                                                                                                                                                    | Diagnosis | ICD-10-CM |
| Z85.528 | Personal history of other malignant neoplasm of kidney                                                                                                                                                                                                     | Diagnosis | ICD-10-CM |
| Z85.53  | Personal history of malignant neoplasm of renal pelvis                                                                                                                                                                                                     | Diagnosis | ICD-10-CM |
| Z85.54  | Personal history of malignant neoplasm of ureter                                                                                                                                                                                                           | Diagnosis | ICD-10-CM |
| Z85.59  | Personal history of malignant neoplasm of other urinary tract organ                                                                                                                                                                                        | Diagnosis | ICD-10-CM |
| Z85.6   | Personal history of leukemia                                                                                                                                                                                                                               | Diagnosis | ICD-10-CM |
| Z85.7   | Personal history of other malignant neoplasms of lymphoid, hematopoietic and related tissues                                                                                                                                                               | Diagnosis | ICD-10-CM |
| Z85.71  | Personal history of Hodgkin lymphoma                                                                                                                                                                                                                       | Diagnosis | ICD-10-CM |
| Z85.72  | Personal history of non-Hodgkin lymphomas                                                                                                                                                                                                                  | Diagnosis | ICD-10-CM |
| Z85.79  | Personal history of other malignant neoplasms of lymphoid, hematopoietic and related tissues                                                                                                                                                               | Diagnosis | ICD-10-CM |
| Z85.8   | Personal history of malignant neoplasms of other organs and systems                                                                                                                                                                                        | Diagnosis | ICD-10-CM |
| Z85.81  | Personal history of malignant neoplasm of lip, oral cavity, and pharynx                                                                                                                                                                                    | Diagnosis | ICD-10-CM |
| Z85.810 | Personal history of malignant neoplasm of tongue                                                                                                                                                                                                           | Diagnosis | ICD-10-CM |
| Z85.818 | Personal history of malignant neoplasm of other sites of lip, oral cavity, and pharynx                                                                                                                                                                     | Diagnosis | ICD-10-CM |
| Z85.819 | Personal history of malignant neoplasm of unspecified site of lip, oral cavity, and pharynx                                                                                                                                                                | Diagnosis | ICD-10-CM |
| Z85.82  | Personal history of malignant neoplasm of skin                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| Z85.820 | Personal history of malignant melanoma of skin                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| Z85.828 | Personal history of other malignant neoplasm of skin                                                                                                                                                                                                       | Diagnosis | ICD-10-CM |
| Z85.83  | Personal history of malignant neoplasm of bone and soft tissue                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| Z85.830 | Personal history of malignant neoplasm of bone                                                                                                                                                                                                             | Diagnosis | ICD-10-CM |
| Z85.831 | Personal history of malignant neoplasm of soft tissue                                                                                                                                                                                                      | Diagnosis | ICD-10-CM |
| Z85.84  | Personal history of malignant neoplasm of eye and nervous tissue                                                                                                                                                                                           | Diagnosis | ICD-10-CM |
| Z85.840 | Personal history of malignant neoplasm of eye                                                                                                                                                                                                              | Diagnosis | ICD-10-CM |
| Z85.841 | Personal history of malignant neoplasm of brain                                                                                                                                                                                                            | Diagnosis | ICD-10-CM |
| Z85.848 | Personal history of malignant neoplasm of other parts of nervous tissue                                                                                                                                                                                    | Diagnosis | ICD-10-CM |
| Z85.85  | Personal history of malignant neoplasm of endocrine glands                                                                                                                                                                                                 | Diagnosis | ICD-10-CM |
| Z85.850 | Personal history of malignant neoplasm of thyroid                                                                                                                                                                                                          | Diagnosis | ICD-10-CM |
| Z85.858 | Personal history of malignant neoplasm of other endocrine glands                                                                                                                                                                                           | Diagnosis | ICD-10-CM |
| Z85.89  | Personal history of malignant neoplasm of other organs and systems                                                                                                                                                                                         | Diagnosis | ICD-10-CM |
| Z85.9   | Personal history of malignant neoplasm, unspecified                                                                                                                                                                                                        | Diagnosis | ICD-10-CM |
| Z92.21  | Personal history of antineoplastic chemotherapy                                                                                                                                                                                                            | Diagnosis | ICD-10-CM |
| 00.10   | Implantation of chemotherapeutic agent                                                                                                                                                                                                                     | Procedure | ICD-9-CM  |
| 00.15   | High-dose infusion interleukin-2 [IL-2]                                                                                                                                                                                                                    | Procedure | ICD-9-CM  |
| 00.18   | Infusion of immunosuppressive antibody therapy                                                                                                                                                                                                             | Procedure | ICD-9-CM  |
| 0083U   | Oncology, response to chemotherapy drugs using motility contrast tomography, fresh or frozen tissue, reported as likelihood of sensitivity or resistance to drugs or drug combinations                                                                     | Procedure | CPT-4     |
| 0135T   | Ablation, renal tumor(s), unilateral, percutaneous, cryotherapy                                                                                                                                                                                            | Procedure | CPT-3     |
| 0174U   | Oncology (solid tumor), mass spectrometric 30 protein targets, formalin-fixed paraffin-embedded tissue, prognostic and predictive algorithm reported as likely, unlikely, or uncertain benefit of 39 chemotherapy and targeted therapeutic oncology agents | Procedure | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                      | Code      |           |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                  | Category  | Code Type |
| 0324U | Oncology (ovarian), spheroid cell culture, 4-drug panel (carboplatin, doxorubicin, gemcitabine, paclitaxel), tumor chemotherapy response prediction for each drug                                                                                                                                                                                                                                | Procedure | CPT-4     |
| 0519F | Planned chemotherapy regimen, including at a minimum: drug(s) prescribed, dose, and duration, documented prior to initiation of a new treatment regimen (ONC)                                                                                                                                                                                                                                    | Procedure | CPT-2     |
| 0581T | Ablation, malignant breast tumor(s), percutaneous, cryotherapy, including imaging guidance when performed, unilateral                                                                                                                                                                                                                                                                            | Procedure | CPT-3     |
| 0600T | Ablation, irreversible electroporation; 1 or more tumors per organ, including imaging guidance, when performed, percutaneous                                                                                                                                                                                                                                                                     | Procedure | CPT-3     |
| 0601T | Ablation, irreversible electroporation; 1 or more tumors, including fluoroscopic and ultrasound guidance, when performed, open                                                                                                                                                                                                                                                                   | Procedure | CPT-3     |
| 0708T | Intradermal cancer immunotherapy; preparation and initial injection                                                                                                                                                                                                                                                                                                                              | Procedure | CPT-3     |
| 0709T | Intradermal cancer immunotherapy; each additional injection (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                          | Procedure | CPT-3     |
| 0735T | Preparation of tumor cavity, with placement of a radiation therapy applicator for intraoperative radiation therapy (IORT) concurrent with primary craniotomy (List separately in addition to code for primary procedure)                                                                                                                                                                         | Procedure | CPT-3     |
| 0763T | Digitization of glass microscope slides for morphometric analysis, tumor immunohistochemistry (eg, Her-2/neu, estrogen receptor/progesterone receptor), quantitative or semiquantitative, per specimen, each single antibody stain procedure, manual (List separately in addition to code for primary procedure)                                                                                 | Procedure | CPT-3     |
| 0794T | Patient-specific, assistive, rules-based algorithm for ranking pharmaco-oncologic treatment options based on the patient's tumor-specific cancer marker information obtained from prior molecular pathology, immunohistochemical, or other pathology results which have been previously interpreted and reported separately                                                                      | Procedure | CPT-3     |
| 17.70 | Intravenous infusion of clofarabine                                                                                                                                                                                                                                                                                                                                                              | Procedure | ICD-9-CM  |
| 17303 | Chemosurgery (Mohs' Micrographic Technique), First Stage, Fixed Tissue Technique, Including Removal Of All Gross Tumor And Application Of Fixative                                                                                                                                                                                                                                               | Procedure | CPT-4     |
| 17304 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); first stage, fresh tissue technique, up to 5 specimens | Procedure | CPT-4     |
| 17305 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); second stage, fixed or fresh tissue, up to 5 specimens | Procedure | CPT-4     |
| 17306 | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); third stage, fixed or fresh tissue, up to 5 specimens  | Procedure | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 17307       | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); additional stage(s), up to 5 specimens, each stage                                                                                                                                                                                             | Procedure            | CPT-4            |
| 17310       | Chemosurgery (Mohs micrographic technique), including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and complete histopathologic preparation including the first routine stain (eg, hematoxylin and eosin, toluidine blue); each additional specimen, after the first 5 specimens, fixed or fresh tissue, any stage (List separately in addition to code for primary procedure)                                                                                            | Procedure            | CPT-4            |
| 17311       | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), head, neck, hands, feet, genitalia, or any location with surgery directly involving muscle, cartilage, bone, tendon, major nerves, or vessels; first stage, up to 5 tissue blocks                                                                                             | Procedure            | CPT-4            |
| 17312       | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), head, neck, hands, feet, genitalia, or any location with surgery directly involving muscle, cartilage, bone, tendon, major nerves, or vessels; each additional stage after the first stage, up to 5 tissue blocks (List separately in addition to code for primary procedure) | Procedure            | CPT-4            |
| 17313       | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), of the trunk, arms, or legs; first stage, up to 5 tissue blocks                                                                                                                                                                                                               | Procedure            | CPT-4            |
| 17314       | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), of the trunk, arms, or legs; each additional stage after the first stage, up to 5 tissue blocks (List separately in addition to code for primary procedure)                                                                                                                   | Procedure            | CPT-4            |
| 17315       | Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stain(s) (eg, hematoxylin and eosin, toluidine blue), each additional block after the first 5 tissue blocks, any stage (List separately in addition to code for primary procedure)                                                                                                                                                  | Procedure            | CPT-4            |
| 19260       | Excision of chest wall tumor including ribs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Procedure            | CPT-4            |
| 19271       | Excision of chest wall tumor involving ribs, with plastic reconstruction; without mediastinal lymphadenectomy                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Procedure            | CPT-4            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                      | Code      | Code Type |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                  | Category  |           |
| 19272 | Excision of chest wall tumor involving ribs, with plastic reconstruction; with mediastinal lymphadenectomy                                                                                                                       | Procedure | CPT-4     |
| 19294 | Preparation of tumor cavity, with placement of a radiation therapy applicator for intraoperative radiation therapy (IORT) concurrent with partial mastectomy (List separately in addition to code for primary procedure)         | Procedure | CPT-4     |
| 20982 | Ablation therapy for reduction or eradication of 1 or more bone tumors (eg, metastasis) including adjacent soft tissue when involved by tumor extension, percutaneous, including imaging guidance when performed; radiofrequency | Procedure | CPT-4     |
| 20983 | Ablation therapy for reduction or eradication of 1 or more bone tumors (eg, metastasis) including adjacent soft tissue when involved by tumor extension, percutaneous, including imaging guidance when performed; cryoablation   | Procedure | CPT-4     |
| 21011 | Excision, tumor, soft tissue of face or scalp, subcutaneous; less than 2 cm                                                                                                                                                      | Procedure | CPT-4     |
| 21012 | Excision, tumor, soft tissue of face or scalp, subcutaneous; 2 cm or greater                                                                                                                                                     | Procedure | CPT-4     |
| 21013 | Excision, tumor, soft tissue of face and scalp, subfascial (eg, subgaleal, intramuscular); less than 2 cm                                                                                                                        | Procedure | CPT-4     |
| 21014 | Excision, tumor, soft tissue of face and scalp, subfascial (eg, subgaleal, intramuscular); 2 cm or greater                                                                                                                       | Procedure | CPT-4     |
| 21015 | Radical resection of tumor (eg, sarcoma), soft tissue of face or scalp; less than 2 cm                                                                                                                                           | Procedure | CPT-4     |
| 21016 | Radical resection of tumor (eg, sarcoma), soft tissue of face or scalp; 2 cm or greater                                                                                                                                          | Procedure | CPT-4     |
| 21034 | Excision of malignant tumor of maxilla or zygoma                                                                                                                                                                                 | Procedure | CPT-4     |
| 21044 | Excision of malignant tumor of mandible;                                                                                                                                                                                         | Procedure | CPT-4     |
| 21045 | Excision of malignant tumor of mandible; radical resection                                                                                                                                                                       | Procedure | CPT-4     |
| 21552 | Excision, tumor, soft tissue of neck or anterior thorax, subcutaneous; 3 cm or greater                                                                                                                                           | Procedure | CPT-4     |
| 21554 | Excision, tumor, soft tissue of neck or anterior thorax, subfascial (eg, intramuscular); 5 cm or greater                                                                                                                         | Procedure | CPT-4     |
| 21555 | Excision, tumor, soft tissue of neck or anterior thorax, subcutaneous; less than 3 cm                                                                                                                                            | Procedure | CPT-4     |
| 21556 | Excision, tumor, soft tissue of neck or anterior thorax, subfascial (eg, intramuscular); less than 5 cm                                                                                                                          | Procedure | CPT-4     |
| 21557 | Radical resection of tumor (eg, sarcoma), soft tissue of neck or anterior thorax; less than 5 cm                                                                                                                                 | Procedure | CPT-4     |
| 21558 | Radical resection of tumor (eg, sarcoma), soft tissue of neck or anterior thorax; 5 cm or greater                                                                                                                                | Procedure | CPT-4     |
| 21601 | Excision of chest wall tumor including rib(s)                                                                                                                                                                                    | Procedure | CPT-4     |
| 21602 | Excision of chest wall tumor involving rib(s), with plastic reconstruction; without mediastinal lymphadenectomy                                                                                                                  | Procedure | CPT-4     |
| 21603 | Excision of chest wall tumor involving rib(s), with plastic reconstruction; with mediastinal lymphadenectomy                                                                                                                     | Procedure | CPT-4     |
| 21930 | Excision, tumor, soft tissue of back or flank, subcutaneous; less than 3 cm                                                                                                                                                      | Procedure | CPT-4     |
| 21931 | Excision, tumor, soft tissue of back or flank, subcutaneous; 3 cm or greater                                                                                                                                                     | Procedure | CPT-4     |
| 21932 | Excision, tumor, soft tissue of back or flank, subfascial (eg, intramuscular); less than 5 cm                                                                                                                                    | Procedure | CPT-4     |
| 21933 | Excision, tumor, soft tissue of back or flank, subfascial (eg, intramuscular); 5 cm or greater                                                                                                                                   | Procedure | CPT-4     |
| 21935 | Radical resection of tumor (eg, sarcoma), soft tissue of back or flank; less than 5 cm                                                                                                                                           | Procedure | CPT-4     |
| 21936 | Radical resection of tumor (eg, sarcoma), soft tissue of back or flank; 5 cm or greater                                                                                                                                          | Procedure | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                            | Category  | Code Type |
| 22105 | PART RESECT VERTEBRAL COMPONENT TUMOR; CERV                                                                | Procedure | CPT-4     |
| 22106 | PART RESECT VERTEBRAL COMPONENT TUMOR; THORACIC                                                            | Procedure | CPT-4     |
| 22107 | PART RESECT VERTEBRAL COMPONENT TUMOR; LUMBAR                                                              | Procedure | CPT-4     |
| 22900 | Excision, tumor, soft tissue of abdominal wall, subfascial (eg, intramuscular); less than 5 cm             | Procedure | CPT-4     |
| 22901 | Excision, tumor, soft tissue of abdominal wall, subfascial (eg, intramuscular); 5 cm or greater            | Procedure | CPT-4     |
| 22902 | Excision, tumor, soft tissue of abdominal wall, subcutaneous; less than 3 cm                               | Procedure | CPT-4     |
| 22903 | Excision, tumor, soft tissue of abdominal wall, subcutaneous; 3 cm or greater                              | Procedure | CPT-4     |
| 22904 | Radical resection of tumor (eg, sarcoma), soft tissue of abdominal wall; less than 5 cm                    | Procedure | CPT-4     |
| 22905 | Radical resection of tumor (eg, sarcoma), soft tissue of abdominal wall; 5 cm or greater                   | Procedure | CPT-4     |
| 23071 | Excision, tumor, soft tissue of shoulder area, subcutaneous; 3 cm or greater                               | Procedure | CPT-4     |
| 23073 | Excision, tumor, soft tissue of shoulder area, subfascial (eg, intramuscular); 5 cm or greater             | Procedure | CPT-4     |
| 23075 | Excision, tumor, soft tissue of shoulder area, subcutaneous; less than 3 cm                                | Procedure | CPT-4     |
| 23076 | Excision, tumor, soft tissue of shoulder area, subfascial (eg, intramuscular); less than 5 cm              | Procedure | CPT-4     |
| 23077 | Radical resection of tumor (eg, sarcoma), soft tissue of shoulder area; less than 5 cm                     | Procedure | CPT-4     |
| 23078 | Radical resection of tumor (eg, sarcoma), soft tissue of shoulder area; 5 cm or greater                    | Procedure | CPT-4     |
| 23200 | Radical resection of tumor; clavicle                                                                       | Procedure | CPT-4     |
| 23210 | Radical resection of tumor; scapula                                                                        | Procedure | CPT-4     |
| 23220 | Radical resection of tumor, proximal humerus                                                               | Procedure | CPT-4     |
| 23221 | Radical resection of bone tumor, proximal humerus; with autograft (includes obtaining graft)               | Procedure | CPT-4     |
| 23222 | Radical resection of bone tumor, proximal humerus; with prosthetic replacement                             | Procedure | CPT-4     |
| 24071 | Excision, tumor, soft tissue of upper arm or elbow area, subcutaneous; 3 cm or greater                     | Procedure | CPT-4     |
| 24073 | Excision, tumor, soft tissue of upper arm or elbow area, subfascial (eg, intramuscular); 5 cm or greater   | Procedure | CPT-4     |
| 24075 | Excision, tumor, soft tissue of upper arm or elbow area, subcutaneous; less than 3 cm                      | Procedure | CPT-4     |
| 24076 | Excision, tumor, soft tissue of upper arm or elbow area, subfascial (eg, intramuscular); less than 5 cm    | Procedure | CPT-4     |
| 24077 | Radical resection of tumor (eg, sarcoma), soft tissue of upper arm or elbow area; less than 5 cm           | Procedure | CPT-4     |
| 24079 | Radical resection of tumor (eg, sarcoma), soft tissue of upper arm or elbow area; 5 cm or greater          | Procedure | CPT-4     |
| 24150 | Radical resection of tumor, shaft or distal humerus                                                        | Procedure | CPT-4     |
| 24151 | Radical resection for tumor, shaft or distal humerus; with autograft (includes obtaining graft)            | Procedure | CPT-4     |
| 24152 | Radical resection of tumor, radial head or neck                                                            | Procedure | CPT-4     |
| 24153 | Radical resection for tumor, radial head or neck; with autograft (includes obtaining graft)                | Procedure | CPT-4     |
| 25071 | Excision, tumor, soft tissue of forearm and/or wrist area, subcutaneous; 3 cm or greater                   | Procedure | CPT-4     |
| 25073 | Excision, tumor, soft tissue of forearm and/or wrist area, subfascial (eg, intramuscular); 3 cm or greater | Procedure | CPT-4     |
| 25075 | Excision, tumor, soft tissue of forearm and/or wrist area, subcutaneous; less than 3 cm                    | Procedure | CPT-4     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                  | Code Category | Code Type |
|-------|------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 25076 | Excision, tumor, soft tissue of forearm and/or wrist area, subfascial (eg, intramuscular); less than 3 cm                    | Procedure     | CPT-4     |
| 25077 | Radical resection of tumor (eg, sarcoma), soft tissue of forearm and/or wrist area; less than 3 cm                           | Procedure     | CPT-4     |
| 25078 | Radical resection of tumor (eg, sarcoma), soft tissue of forearm and/or wrist area; 3 cm or greater                          | Procedure     | CPT-4     |
| 25170 | Radical resection of tumor, radius or ulna                                                                                   | Procedure     | CPT-4     |
| 26111 | Excision, tumor or vascular malformation, soft tissue of hand or finger, subcutaneous; 1.5 cm or greater                     | Procedure     | CPT-4     |
| 26113 | Excision, tumor, soft tissue, or vascular malformation, of hand or finger, subfascial (eg, intramuscular); 1.5 cm or greater | Procedure     | CPT-4     |
| 26115 | Excision, tumor or vascular malformation, soft tissue of hand or finger, subcutaneous; less than 1.5 cm                      | Procedure     | CPT-4     |
| 26116 | Excision, tumor, soft tissue, or vascular malformation, of hand or finger, subfascial (eg, intramuscular); less than 1.5 cm  | Procedure     | CPT-4     |
| 26117 | Radical resection of tumor (eg, sarcoma), soft tissue of hand or finger; less than 3 cm                                      | Procedure     | CPT-4     |
| 26118 | Radical resection of tumor (eg, sarcoma), soft tissue of hand or finger; 3 cm or greater                                     | Procedure     | CPT-4     |
| 26250 | Radical resection of tumor, metacarpal                                                                                       | Procedure     | CPT-4     |
| 26255 | Radical resection, metacarpal (eg, tumor); with autograft (includes obtaining graft)                                         | Procedure     | CPT-4     |
| 26260 | Radical resection of tumor, proximal or middle phalanx of finger                                                             | Procedure     | CPT-4     |
| 26261 | Radical resection, proximal or middle phalanx of finger (eg, tumor); with autograft (includes obtaining graft)               | Procedure     | CPT-4     |
| 26262 | Radical resection of tumor, distal phalanx of finger                                                                         | Procedure     | CPT-4     |
| 27043 | Excision, tumor, soft tissue of pelvis and hip area, subcutaneous; 3 cm or greater                                           | Procedure     | CPT-4     |
| 27045 | Excision, tumor, soft tissue of pelvis and hip area, subfascial (eg, intramuscular); 5 cm or greater                         | Procedure     | CPT-4     |
| 27047 | Excision, tumor, soft tissue of pelvis and hip area, subcutaneous; less than 3 cm                                            | Procedure     | CPT-4     |
| 27048 | Excision, tumor, soft tissue of pelvis and hip area, subfascial (eg, intramuscular); less than 5 cm                          | Procedure     | CPT-4     |
| 27049 | Radical resection of tumor (eg, sarcoma), soft tissue of pelvis and hip area; less than 5 cm                                 | Procedure     | CPT-4     |
| 27059 | Radical resection of tumor (eg, sarcoma), soft tissue of pelvis and hip area; 5 cm or greater                                | Procedure     | CPT-4     |
| 27075 | Radical resection of tumor; wing of ilium, 1 pubic or ischial ramus or symphysis pubis                                       | Procedure     | CPT-4     |
| 27076 | Radical resection of tumor; ilium, including acetabulum, both pubic rami, or ischium and acetabulum                          | Procedure     | CPT-4     |
| 27077 | Radical resection of tumor; innominate bone, total                                                                           | Procedure     | CPT-4     |
| 27078 | Radical resection of tumor; ischial tuberosity and greater trochanter of femur                                               | Procedure     | CPT-4     |
| 27079 | Radical resection of tumor or infection; ischial tuberosity and greater trochanter of femur, with skin flaps                 | Procedure     | CPT-4     |
| 27327 | Excision, tumor, soft tissue of thigh or knee area, subcutaneous; less than 3 cm                                             | Procedure     | CPT-4     |
| 27328 | Excision, tumor, soft tissue of thigh or knee area, subfascial (eg, intramuscular); less than 5 cm                           | Procedure     | CPT-4     |
| 27329 | Radical resection of tumor (eg, sarcoma), soft tissue of thigh or knee area; less than 5 cm                                  | Procedure     | CPT-4     |
| 27337 | Excision, tumor, soft tissue of thigh or knee area, subcutaneous; 3 cm or greater                                            | Procedure     | CPT-4     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                          | Code      | Code Type |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       | Category                                                                                                                                                                                             |           |           |
| 27339 | Excision, tumor, soft tissue of thigh or knee area, subfascial (eg, intramuscular); 5 cm or greater                                                                                                  | Procedure | CPT-4     |
| 27364 | Radical resection of tumor (eg, sarcoma), soft tissue of thigh or knee area; 5 cm or greater                                                                                                         | Procedure | CPT-4     |
| 27365 | Radical resection of tumor, femur or knee                                                                                                                                                            | Procedure | CPT-4     |
| 27615 | Radical resection of tumor (eg, sarcoma), soft tissue of leg or ankle area; less than 5 cm                                                                                                           | Procedure | CPT-4     |
| 27616 | Radical resection of tumor (eg, sarcoma), soft tissue of leg or ankle area; 5 cm or greater                                                                                                          | Procedure | CPT-4     |
| 27618 | Excision, tumor, soft tissue of leg or ankle area, subcutaneous; less than 3 cm                                                                                                                      | Procedure | CPT-4     |
| 27619 | Excision, tumor, soft tissue of leg or ankle area, subfascial (eg, intramuscular); less than 5 cm                                                                                                    | Procedure | CPT-4     |
| 27632 | Excision, tumor, soft tissue of leg or ankle area, subcutaneous; 3 cm or greater                                                                                                                     | Procedure | CPT-4     |
| 27634 | Excision, tumor, soft tissue of leg or ankle area, subfascial (eg, intramuscular); 5 cm or greater                                                                                                   | Procedure | CPT-4     |
| 27645 | Radical resection of tumor; tibia                                                                                                                                                                    | Procedure | CPT-4     |
| 27646 | Radical resection of tumor; fibula                                                                                                                                                                   | Procedure | CPT-4     |
| 27647 | Radical resection of tumor; talus or calcaneus                                                                                                                                                       | Procedure | CPT-4     |
| 28039 | Excision, tumor, soft tissue of foot or toe, subcutaneous; 1.5 cm or greater                                                                                                                         | Procedure | CPT-4     |
| 28041 | Excision, tumor, soft tissue of foot or toe, subfascial (eg, intramuscular); 1.5 cm or greater                                                                                                       | Procedure | CPT-4     |
| 28043 | Excision, tumor, soft tissue of foot or toe, subcutaneous; less than 1.5 cm                                                                                                                          | Procedure | CPT-4     |
| 28045 | Excision, tumor, soft tissue of foot or toe, subfascial (eg, intramuscular); less than 1.5 cm                                                                                                        | Procedure | CPT-4     |
| 28046 | Radical resection of tumor (eg, sarcoma), soft tissue of foot or toe; less than 3 cm                                                                                                                 | Procedure | CPT-4     |
| 28047 | Radical resection of tumor (eg, sarcoma), soft tissue of foot or toe; 3 cm or greater                                                                                                                | Procedure | CPT-4     |
| 28171 | Radical resection of tumor; tarsal (except talus or calcaneus)                                                                                                                                       | Procedure | CPT-4     |
| 28173 | Radical resection of tumor; metatarsal                                                                                                                                                               | Procedure | CPT-4     |
| 28175 | Radical resection of tumor; phalanx of toe                                                                                                                                                           | Procedure | CPT-4     |
| 31300 | Laryngotomy (thyrotomy, laryngofissure), with removal of tumor or laryngocele, cordectomy                                                                                                            | Procedure | CPT-4     |
| 31540 | Laryngoscopy, direct, operative, with excision of tumor and/or stripping of vocal cords or epiglottis;                                                                                               | Procedure | CPT-4     |
| 31541 | Laryngoscopy, direct, operative, with excision of tumor and/or stripping of vocal cords or epiglottis; with operating microscope or telescope                                                        | Procedure | CPT-4     |
| 31640 | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with excision of tumor                                                                                             | Procedure | CPT-4     |
| 31641 | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with destruction of tumor or relief of stenosis by any method other than excision (eg, laser therapy, cryotherapy) | Procedure | CPT-4     |
| 31785 | Excision of tracheal tumor or carcinoma; cervical                                                                                                                                                    | Procedure | CPT-4     |
| 31786 | Excision of tracheal tumor or carcinoma; thoracic                                                                                                                                                    | Procedure | CPT-4     |
| 32503 | Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; without chest wall reconstruction(s)             | Procedure | CPT-4     |
| 32504 | Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; with chest wall reconstruction                   | Procedure | CPT-4     |
| 3250F | Specimen site other than anatomic location of primary tumor (PATH)                                                                                                                                   | Procedure | CPT-2     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                        | Code      | Code Type |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| 3260F | pT category (primary tumor), pN category (regional lymph nodes), and histologic grade documented in pathology report (PATH)                                                                                                        | Procedure | CPT-2     |
| 32661 | Thoracoscopy, surgical; with excision of pericardial cyst, tumor, or mass                                                                                                                                                          | Procedure | CPT-4     |
| 32662 | Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass                                                                                                                                                          | Procedure | CPT-4     |
| 3268F | Prostate-specific antigen (PSA), and primary tumor (T) stage, and Gleason score documented prior to initiation of treatment (PRCA)                                                                                                 | Procedure | CPT-2     |
| 3269F | Bone scan performed prior to initiation of treatment or at any time since diagnosis of prostate cancer (PRCA)                                                                                                                      | Procedure | CPT-2     |
| 3270F | Bone scan not performed prior to initiation of treatment nor at any time since diagnosis of prostate cancer (PRCA)                                                                                                                 | Procedure | CPT-2     |
| 32994 | Ablation therapy for reduction or eradication of 1 or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, including imaging guidance when performed, unilateral; cryoablation   | Procedure | CPT-4     |
| 32998 | Ablation therapy for reduction or eradication of 1 or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, including imaging guidance when performed, unilateral; radiofrequency | Procedure | CPT-4     |
| 3301F | Cancer stage documented in medical record as metastatic and reviewed (ONC)                                                                                                                                                         | Procedure | CPT-2     |
| 3302F | AJCC Cancer Stage 0, documented (ONC)1, (ML)5                                                                                                                                                                                      | Procedure | CPT-2     |
| 3303F | AJCC Cancer Stage IA, documented (ONC)1, (ML)5                                                                                                                                                                                     | Procedure | CPT-2     |
| 3304F | AJCC Cancer Stage IB, documented (ONC)1, (ML)5                                                                                                                                                                                     | Procedure | CPT-2     |
| 33050 | Resection of pericardial cyst or tumor                                                                                                                                                                                             | Procedure | CPT-4     |
| 3305F | AJCC Cancer Stage IC, documented (ONC)1, (ML)5                                                                                                                                                                                     | Procedure | CPT-2     |
| 3306F | AJCC Cancer Stage IIA, documented (ONC)1, (ML)5                                                                                                                                                                                    | Procedure | CPT-2     |
| 3307F | AJCC Cancer Stage IIB, documented (ONC)1, (ML)5                                                                                                                                                                                    | Procedure | CPT-2     |
| 3308F | AJCC Cancer Stage IIC, documented (ONC)1, (ML)5                                                                                                                                                                                    | Procedure | CPT-2     |
| 3309F | AJCC Cancer Stage IIIA, documented (ONC)1, (ML)5                                                                                                                                                                                   | Procedure | CPT-2     |
| 3310F | AJCC Cancer Stage IIIB, documented (ONC)1, (ML)5                                                                                                                                                                                   | Procedure | CPT-2     |
| 3311F | AJCC Cancer Stage IIIC, documented (ONC)1, (ML)5                                                                                                                                                                                   | Procedure | CPT-2     |
| 33120 | Excision of intracardiac tumor, resection with cardiopulmonary bypass                                                                                                                                                              | Procedure | CPT-4     |
| 3312F | AJCC Cancer Stage IV, documented (ONC)1, (ML)5                                                                                                                                                                                     | Procedure | CPT-2     |
| 33130 | Resection of external cardiac tumor                                                                                                                                                                                                | Procedure | CPT-4     |
| 3313F | AJCC Cancer Stage IVB, documented (ONC)1, (ML)5                                                                                                                                                                                    | Procedure | CPT-2     |
| 3314F | AJCC Cancer Stage IVC, documented (ONC)1, (ML)5                                                                                                                                                                                    | Procedure | CPT-2     |
| 3315F | Estrogen receptor (ER) or progesterone receptor (PR) positive breast cancer (ONC)                                                                                                                                                  | Procedure | CPT-2     |
| 3316F | Estrogen receptor (ER) and progesterone receptor (PR) negative breast cancer (ONC)                                                                                                                                                 | Procedure | CPT-2     |
| 3317F | Pathology report confirming malignancy documented in the medical record and reviewed prior to the initiation of chemotherapy (ONC)                                                                                                 | Procedure | CPT-2     |
| 3318F | Pathology report confirming malignancy documented in the medical record and reviewed prior to the initiation of radiation therapy (ONC)                                                                                            | Procedure | CPT-2     |
| 3321F | AJCC Cancer Stage 0 or IA Melanoma, documented (ML)                                                                                                                                                                                | Procedure | CPT-2     |
| 3323F | Clinical tumor, node and metastases (TNM) staging documented and reviewed prior to surgery (Lung/Esop Cx)                                                                                                                          | Procedure | CPT-2     |
| 3370F | AJCC Breast Cancer Stage 0 documented (ONC)                                                                                                                                                                                        | Procedure | CPT-2     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                                                                                                                                                          | Code      |            |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|
|         |                                                                                                                                                                                                                                                      | Category  | Code Type  |
| 3372F   | AJCC Breast Cancer Stage I: T1mic, T1a or T1b (tumor size <= 1 cm) documented (ONC)                                                                                                                                                                  | Procedure | CPT-2      |
| 3374F   | AJCC Breast Cancer Stage I: T1c (tumor size > 1 cm to 2 cm) documented (ONC)                                                                                                                                                                         | Procedure | CPT-2      |
| 3376F   | AJCC Breast Cancer Stage II documented (ONC)                                                                                                                                                                                                         | Procedure | CPT-2      |
| 3378F   | AJCC Breast Cancer Stage III documented (ONC)                                                                                                                                                                                                        | Procedure | CPT-2      |
| 3380F   | AJCC Breast Cancer Stage IV documented (ONC)                                                                                                                                                                                                         | Procedure | CPT-2      |
| 3382F   | AJCC colon cancer, Stage 0 documented (ONC)                                                                                                                                                                                                          | Procedure | CPT-2      |
| 3384F   | AJCC colon cancer, Stage I documented (ONC)                                                                                                                                                                                                          | Procedure | CPT-2      |
| 3386F   | AJCC colon cancer, Stage II documented (ONC)                                                                                                                                                                                                         | Procedure | CPT-2      |
| 3388F   | AJCC colon cancer, Stage III documented (ONC)                                                                                                                                                                                                        | Procedure | CPT-2      |
| 3390F   | AJCC colon cancer, Stage IV documented (ONC)                                                                                                                                                                                                         | Procedure | CPT-2      |
| 36260   | Insertion of implantable intra-arterial infusion pump (eg, for chemotherapy of liver)                                                                                                                                                                | Procedure | CPT-4      |
| 36488   | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, age 2 years or under                                                    | Procedure | CPT-4      |
| 36489   | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); percutaneous, over age 2                                                              | Procedure | CPT-4      |
| 36490   | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, age 2 years or under                                                         | Procedure | CPT-4      |
| 36491   | Placement of central venous catheter (subclavian, jugular, or other vein) (eg, for central venous pressure, hyperalimentation, hemodialysis, or chemotherapy); cutdown, over age 2                                                                   | Procedure | CPT-4      |
| 36640   | Arterial catheterization for prolonged infusion therapy (chemotherapy), cutdown                                                                                                                                                                      | Procedure | CPT-4      |
| 36823   | Insertion of arterial and venous cannula(s) for isolated extracorporeal circulation including regional chemotherapy perfusion to an extremity, with or without hyperthermia, with removal of cannula(s) and repair of arteriotomy and venotomy sites | Procedure | CPT-4      |
| 39220   | Resection of mediastinal tumor                                                                                                                                                                                                                       | Procedure | CPT-4      |
| 3E00X05 | Introduction of Other Antineoplastic into Skin and Mucous Membranes, External                                                                                                                                                                        | Procedure | ICD-10-PCS |
| 3E00X0M | Introduction of Antineoplastic, Monoclonal Antibody, into Skin and Mucous Membranes, External Approach                                                                                                                                               | Procedure | ICD-10-PCS |
| 3E01305 | Introduction of Other Antineoplastic into Subcutaneous Tissue, Percutaneous Approach                                                                                                                                                                 | Procedure | ICD-10-PCS |
| 3E0130M | Introduction of Antineoplastic, Monoclonal Antibody, into Subcutaneous Tissue, Percutaneous Approach                                                                                                                                                 | Procedure | ICD-10-PCS |
| 3E02305 | Introduction of Other Antineoplastic into Muscle, Percutaneous Approach                                                                                                                                                                              | Procedure | ICD-10-PCS |
| 3E0230M | Introduction of Antineoplastic, Monoclonal Antibody, into Muscle, Percutaneous                                                                                                                                                                       | Procedure | ICD-10-PCS |
| 3E03002 | Introduction of High-dose Interleukin-2 into Peripheral Vein, Open Approach                                                                                                                                                                          | Procedure | ICD-10-PCS |
| 3E03003 | Introduction of Low-dose Interleukin-2 into Peripheral Vein, Open Approach                                                                                                                                                                           | Procedure | ICD-10-PCS |
| 3E03005 | Introduction of Other Antineoplastic into Peripheral Vein, Open Approach                                                                                                                                                                             | Procedure | ICD-10-PCS |
| 3E0300M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Vein, Open                                                                                                                                                                      | Procedure | ICD-10-PCS |
| 3E0300P | Introduction of Clofarabine into Peripheral Vein, Open Approach                                                                                                                                                                                      | Procedure | ICD-10-PCS |
| 3E03302 | Introduction of High-dose Interleukin-2 into Peripheral Vein, Percutaneous Approach                                                                                                                                                                  | Procedure | ICD-10-PCS |
| 3E03303 | Introduction of Low-dose Interleukin-2 into Peripheral Vein, Percutaneous Approach                                                                                                                                                                   | Procedure | ICD-10-PCS |
| 3E03305 | Introduction of Other Antineoplastic into Peripheral Vein, Percutaneous Approach                                                                                                                                                                     | Procedure | ICD-10-PCS |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                        | Code      | Code Type  |
|---------|----------------------------------------------------------------------------------------------------|-----------|------------|
|         | Category                                                                                           |           |            |
| 3E0330M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Vein, Percutaneous Approach   | Procedure | ICD-10-PCS |
| 3E0330P | Introduction of Clofarabine into Peripheral Vein, Percutaneous Approach                            | Procedure | ICD-10-PCS |
| 3E04002 | Introduction of High-dose Interleukin-2 into Central Vein, Open Approach                           | Procedure | ICD-10-PCS |
| 3E04003 | Introduction of Low-dose Interleukin-2 into Central Vein, Open Approach                            | Procedure | ICD-10-PCS |
| 3E04005 | Introduction of Other Antineoplastic into Central Vein, Open Approach                              | Procedure | ICD-10-PCS |
| 3E0400M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Vein, Open Approach              | Procedure | ICD-10-PCS |
| 3E0400P | Introduction of Clofarabine into Central Vein, Open Approach                                       | Procedure | ICD-10-PCS |
| 3E04302 | Introduction of High-dose Interleukin-2 into Central Vein, Percutaneous Approach                   | Procedure | ICD-10-PCS |
| 3E04303 | Introduction of Low-dose Interleukin-2 into Central Vein, Percutaneous Approach                    | Procedure | ICD-10-PCS |
| 3E04305 | Introduction of Other Antineoplastic into Central Vein, Percutaneous Approach                      | Procedure | ICD-10-PCS |
| 3E0430M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Vein, Percutaneous Approach      | Procedure | ICD-10-PCS |
| 3E0430P | Introduction of Clofarabine into Central Vein, Percutaneous Approach                               | Procedure | ICD-10-PCS |
| 3E05002 | Introduction of High-dose Interleukin-2 into Peripheral Artery, Open Approach                      | Procedure | ICD-10-PCS |
| 3E05003 | Introduction of Low-dose Interleukin-2 into Peripheral Artery, Open Approach                       | Procedure | ICD-10-PCS |
| 3E05005 | Introduction of Other Antineoplastic into Peripheral Artery, Open Approach                         | Procedure | ICD-10-PCS |
| 3E0500M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Artery, Open Approach         | Procedure | ICD-10-PCS |
| 3E0500P | Introduction of Clofarabine into Peripheral Artery, Open Approach                                  | Procedure | ICD-10-PCS |
| 3E05302 | Introduction of High-dose Interleukin-2 into Peripheral Artery, Percutaneous Approach              | Procedure | ICD-10-PCS |
| 3E05303 | Introduction of Low-dose Interleukin-2 into Peripheral Artery, Percutaneous Approach               | Procedure | ICD-10-PCS |
| 3E05305 | Introduction of Other Antineoplastic into Peripheral Artery, Percutaneous Approach                 | Procedure | ICD-10-PCS |
| 3E0530M | Introduction of Antineoplastic, Monoclonal Antibody, into Peripheral Artery, Percutaneous Approach | Procedure | ICD-10-PCS |
| 3E0530P | Introduction of Clofarabine into Peripheral Artery, Percutaneous Approach                          | Procedure | ICD-10-PCS |
| 3E06002 | Introduction of High-dose Interleukin-2 into Central Artery, Open Approach                         | Procedure | ICD-10-PCS |
| 3E06003 | Introduction of Low-dose Interleukin-2 into Central Artery, Open Approach                          | Procedure | ICD-10-PCS |
| 3E06005 | Introduction of Other Antineoplastic into Central Artery, Open Approach                            | Procedure | ICD-10-PCS |
| 3E0600M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Artery, Open Approach            | Procedure | ICD-10-PCS |
| 3E0600P | Introduction of Clofarabine into Central Artery, Open Approach                                     | Procedure | ICD-10-PCS |
| 3E06302 | Introduction of High-dose Interleukin-2 into Central Artery, Percutaneous Approach                 | Procedure | ICD-10-PCS |
| 3E06303 | Introduction of Low-dose Interleukin-2 into Central Artery, Percutaneous Approach                  | Procedure | ICD-10-PCS |
| 3E06305 | Introduction of Other Antineoplastic into Central Artery, Percutaneous Approach                    | Procedure | ICD-10-PCS |
| 3E0630M | Introduction of Antineoplastic, Monoclonal Antibody, into Central Artery, Percutaneous Approach    | Procedure | ICD-10-PCS |
| 3E0630P | Introduction of Clofarabine into Central Artery, Percutaneous Approach                             | Procedure | ICD-10-PCS |
| 3E09305 | Introduction of Other Antineoplastic into Nose, Percutaneous Approach                              | Procedure | ICD-10-PCS |
| 3E0930M | Introduction of Antineoplastic, Monoclonal Antibody, into Nose, Percutaneous Approach              | Procedure | ICD-10-PCS |
| 3E09705 | Introduction of Other Antineoplastic into Nose, Via Natural or Artificial Opening                  | Procedure | ICD-10-PCS |
| 3E0970M | Introduction of Antineoplastic, Monoclonal Antibody, into Nose, Via Natural or Artificial Opening  | Procedure | ICD-10-PCS |
| 3E09X05 | Introduction of Other Antineoplastic into Nose, External Approach                                  | Procedure | ICD-10-PCS |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                                    | Code Category | Code Type  |
|---------|--------------------------------------------------------------------------------------------------------------------------------|---------------|------------|
| 3E09X0M | Introduction of Antineoplastic, Monoclonal Antibody, into Nose, External Approach                                              | Procedure     | ICD-10-PCS |
| 3E0A305 | Introduction of Other Antineoplastic into Bone Marrow, Percutaneous Approach                                                   | Procedure     | ICD-10-PCS |
| 3E0A30M | Introduction of Antineoplastic, Monoclonal Antibody, into Bone Marrow, Percutaneous Approach                                   | Procedure     | ICD-10-PCS |
| 3E0B305 | Introduction of Other Antineoplastic into Ear, Percutaneous Approach                                                           | Procedure     | ICD-10-PCS |
| 3E0B30M | Introduction of Antineoplastic, Monoclonal Antibody, into Ear, Percutaneous Approach                                           | Procedure     | ICD-10-PCS |
| 3E0B705 | Introduction of Other Antineoplastic into Ear, Via Natural or Artificial Opening                                               | Procedure     | ICD-10-PCS |
| 3E0B70M | Introduction of Antineoplastic, Monoclonal Antibody, into Ear, Via Natural or Artificial Opening                               | Procedure     | ICD-10-PCS |
| 3E0BX05 | Introduction of Other Antineoplastic into Ear, External Approach                                                               | Procedure     | ICD-10-PCS |
| 3E0BX0M | Introduction of Antineoplastic, Monoclonal Antibody, into Ear, External Approach                                               | Procedure     | ICD-10-PCS |
| 3E0C305 | Introduction of Other Antineoplastic into Eye, Percutaneous Approach                                                           | Procedure     | ICD-10-PCS |
| 3E0C30M | Introduction of Antineoplastic, Monoclonal Antibody, into Eye, Percutaneous Approach                                           | Procedure     | ICD-10-PCS |
| 3E0C705 | Introduction of Other Antineoplastic into Eye, Via Natural or Artificial Opening                                               | Procedure     | ICD-10-PCS |
| 3E0C70M | Introduction of Antineoplastic, Monoclonal Antibody, into Eye, Via Natural or Artificial Opening                               | Procedure     | ICD-10-PCS |
| 3E0CX05 | Introduction of Other Antineoplastic into Eye, External Approach                                                               | Procedure     | ICD-10-PCS |
| 3E0CX0M | Introduction of Antineoplastic, Monoclonal Antibody, into Eye, External Approach                                               | Procedure     | ICD-10-PCS |
| 3E0D305 | Introduction of Other Antineoplastic into Mouth and Pharynx, Percutaneous Approach                                             | Procedure     | ICD-10-PCS |
| 3E0D30M | Introduction of Antineoplastic, Monoclonal Antibody, into Mouth and Pharynx, Percutaneous Approach                             | Procedure     | ICD-10-PCS |
| 3E0D705 | Introduction of Other Antineoplastic into Mouth and Pharynx, Via Natural or Artificial Opening                                 | Procedure     | ICD-10-PCS |
| 3E0D70M | Introduction of Antineoplastic, Monoclonal Antibody, into Mouth and Pharynx, Via Natural or Artificial Opening                 | Procedure     | ICD-10-PCS |
| 3E0DX05 | Introduction of Other Antineoplastic into Mouth and Pharynx, External Approach                                                 | Procedure     | ICD-10-PCS |
| 3E0DX0M | Introduction of Antineoplastic, Monoclonal Antibody, into Mouth and Pharynx, External Approach                                 | Procedure     | ICD-10-PCS |
| 3E0E305 | Introduction of Other Antineoplastic into Products of Conception, Percutaneous Approach                                        | Procedure     | ICD-10-PCS |
| 3E0E30M | Introduction of Antineoplastic, Monoclonal Antibody, into Products of Conception, Percutaneous Approach                        | Procedure     | ICD-10-PCS |
| 3E0E705 | Introduction of Other Antineoplastic into Products of Conception, Via Natural or Artificial Opening                            | Procedure     | ICD-10-PCS |
| 3E0E70M | Introduction of Antineoplastic, Monoclonal Antibody, into Products of Conception, Via Natural or Artificial Opening            | Procedure     | ICD-10-PCS |
| 3E0E805 | Introduction of Other Antineoplastic into Products of Conception, Via Natural or Artificial Opening Endoscopic                 | Procedure     | ICD-10-PCS |
| 3E0E80M | Introduction of Antineoplastic, Monoclonal Antibody, into Products of Conception, Via Natural or Artificial Opening Endoscopic | Procedure     | ICD-10-PCS |
| 3E0F305 | Introduction of Other Antineoplastic into Respiratory Tract, Percutaneous Approach                                             | Procedure     | ICD-10-PCS |
| 3E0F30M | Introduction of Antineoplastic, Monoclonal Antibody, into Respiratory Tract, Percutaneous Approach                             | Procedure     | ICD-10-PCS |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                   | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 3E0F705     | Introduction of Other Antineoplastic into Respiratory Tract, Via Natural or Artificial Opening                                       | Procedure            | ICD-10-PCS       |
| 3E0F70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Respiratory Tract, Via Natural or Artificial Opening                       | Procedure            | ICD-10-PCS       |
| 3E0F805     | Introduction of Other Antineoplastic into Respiratory Tract, Via Natural or Artificial Opening Endoscopic                            | Procedure            | ICD-10-PCS       |
| 3E0F80M     | Introduction of Antineoplastic, Monoclonal Antibody, into Respiratory Tract, Via Natural or Artificial Opening Endoscopic            | Procedure            | ICD-10-PCS       |
| 3E0G305     | Introduction of Other Antineoplastic into Upper GI, Percutaneous Approach                                                            | Procedure            | ICD-10-PCS       |
| 3E0G30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Upper GI, Percutaneous Approach                                            | Procedure            | ICD-10-PCS       |
| 3E0G705     | Introduction of Other Antineoplastic into Upper GI, Via Natural or Artificial Opening                                                | Procedure            | ICD-10-PCS       |
| 3E0G70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Upper GI, Via Natural or Artificial Opening                                | Procedure            | ICD-10-PCS       |
| 3E0G805     | Introduction of Other Antineoplastic into Upper GI, Via Natural or Artificial Opening Endoscopic                                     | Procedure            | ICD-10-PCS       |
| 3E0G80M     | Introduction of Antineoplastic, Monoclonal Antibody, into Upper GI, Via Natural or Artificial Opening Endoscopic                     | Procedure            | ICD-10-PCS       |
| 3E0H305     | Introduction of Other Antineoplastic into Lower GI, Percutaneous Approach                                                            | Procedure            | ICD-10-PCS       |
| 3E0H30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Lower GI, Percutaneous Approach                                            | Procedure            | ICD-10-PCS       |
| 3E0H705     | Introduction of Other Antineoplastic into Lower GI, Via Natural or Artificial Opening                                                | Procedure            | ICD-10-PCS       |
| 3E0H70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Lower GI, Via Natural or Artificial Opening                                | Procedure            | ICD-10-PCS       |
| 3E0H805     | Introduction of Other Antineoplastic into Lower GI, Via Natural or Artificial Opening Endoscopic                                     | Procedure            | ICD-10-PCS       |
| 3E0H80M     | Introduction of Antineoplastic, Monoclonal Antibody, into Lower GI, Via Natural or Artificial Opening Endoscopic                     | Procedure            | ICD-10-PCS       |
| 3E0J305     | Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Percutaneous Approach                                        | Procedure            | ICD-10-PCS       |
| 3E0J30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Biliary and Pancreatic Tract, Percutaneous Approach                        | Procedure            | ICD-10-PCS       |
| 3E0J705     | Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Via Natural or Artificial Opening                            | Procedure            | ICD-10-PCS       |
| 3E0J70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Biliary and Pancreatic Tract, Via Natural or Artificial Opening            | Procedure            | ICD-10-PCS       |
| 3E0J805     | Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Via Natural or Artificial Opening Endoscopic                 | Procedure            | ICD-10-PCS       |
| 3E0J80M     | Introduction of Antineoplastic, Monoclonal Antibody, into Biliary and Pancreatic Tract, Via Natural or Artificial Opening Endoscopic | Procedure            | ICD-10-PCS       |
| 3E0K305     | Introduction of Other Antineoplastic into Genitourinary Tract, Percutaneous Approach                                                 | Procedure            | ICD-10-PCS       |
| 3E0K30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Genitourinary Tract, Percutaneous Approach                                 | Procedure            | ICD-10-PCS       |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                          | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 3E0K705     | Introduction of Other Antineoplastic into Genitourinary Tract, Via Natural or Artificial Opening                            | Procedure            | ICD-10-PCS       |
| 3E0K70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Genitourinary Tract, Via Natural or Artificial Opening            | Procedure            | ICD-10-PCS       |
| 3E0K805     | Introduction of Other Antineoplastic into Genitourinary Tract, Via Natural or Artificial Opening Endoscopic                 | Procedure            | ICD-10-PCS       |
| 3E0K80M     | Introduction of Antineoplastic, Monoclonal Antibody, into Genitourinary Tract, Via Natural or Artificial Opening Endoscopic | Procedure            | ICD-10-PCS       |
| 3E0L305     | Introduction of Other Antineoplastic into Pleural Cavity, Percutaneous Approach                                             | Procedure            | ICD-10-PCS       |
| 3E0L30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Pleural Cavity, Percutaneous Approach                             | Procedure            | ICD-10-PCS       |
| 3E0L705     | Introduction of Other Antineoplastic into Pleural Cavity, Via Natural or Artificial Opening                                 | Procedure            | ICD-10-PCS       |
| 3E0L70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Pleural Cavity, Via Natural or Artificial Opening                 | Procedure            | ICD-10-PCS       |
| 3E0M305     | Introduction of Other Antineoplastic into Peritoneal Cavity, Percutaneous Approach                                          | Procedure            | ICD-10-PCS       |
| 3E0M30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Peritoneal Cavity, Percutaneous Approach                          | Procedure            | ICD-10-PCS       |
| 3E0M705     | Introduction of Other Antineoplastic into Peritoneal Cavity, Via Natural or Artificial Opening                              | Procedure            | ICD-10-PCS       |
| 3E0M70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Peritoneal Cavity, Via Natural or Artificial Opening              | Procedure            | ICD-10-PCS       |
| 3E0N305     | Introduction of Other Antineoplastic into Male Reproductive, Percutaneous Approach                                          | Procedure            | ICD-10-PCS       |
| 3E0N30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Male Reproductive, Percutaneous Approach                          | Procedure            | ICD-10-PCS       |
| 3E0N705     | Introduction of Other Antineoplastic into Male Reproductive, Via Natural or Artificial Opening                              | Procedure            | ICD-10-PCS       |
| 3E0N70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Male Reproductive, Via Natural or Artificial Opening              | Procedure            | ICD-10-PCS       |
| 3E0N805     | Introduction of Other Antineoplastic into Male Reproductive, Via Natural or Artificial Opening Endoscopic                   | Procedure            | ICD-10-PCS       |
| 3E0N80M     | Introduction of Antineoplastic, Monoclonal Antibody, into Male Reproductive, Via Natural or Artificial Opening Endoscopic   | Procedure            | ICD-10-PCS       |
| 3E0P305     | Introduction of Other Antineoplastic into Female Reproductive, Percutaneous Approach                                        | Procedure            | ICD-10-PCS       |
| 3E0P30M     | Introduction of Antineoplastic, Monoclonal Antibody, into Female Reproductive, Percutaneous Approach                        | Procedure            | ICD-10-PCS       |
| 3E0P705     | Introduction of Other Antineoplastic into Female Reproductive, Via Natural or Artificial Opening                            | Procedure            | ICD-10-PCS       |
| 3E0P70M     | Introduction of Antineoplastic, Monoclonal Antibody, into Female Reproductive, Via Natural or Artificial Opening            | Procedure            | ICD-10-PCS       |
| 3E0P805     | Introduction of Other Antineoplastic into Female Reproductive, Via Natural or Artificial Opening Endoscopic                 | Procedure            | ICD-10-PCS       |
| 3E0P80M     | Introduction of Antineoplastic, Monoclonal Antibody, into Female Reproductive, Via Natural or Artificial Opening Endoscopic | Procedure            | ICD-10-PCS       |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                           | Code Category | Code Type  |
|---------|-----------------------------------------------------------------------------------------------------------------------|---------------|------------|
| 3E0Q005 | Introduction of Other Antineoplastic into Cranial Cavity and Brain, Open Approach                                     | Procedure     | ICD-10-PCS |
| 3E0Q00M | Introduction of Antineoplastic, Monoclonal Antibody, into Cranial Cavity and Brain, Open Approach                     | Procedure     | ICD-10-PCS |
| 3E0Q305 | Introduction of Other Antineoplastic into Cranial Cavity and Brain, Percutaneous Approach                             | Procedure     | ICD-10-PCS |
| 3E0Q30M | Introduction of Antineoplastic, Monoclonal Antibody, into Cranial Cavity and Brain, Percutaneous Approach             | Procedure     | ICD-10-PCS |
| 3E0Q705 | Introduction of Other Antineoplastic into Cranial Cavity and Brain, Via Natural or Artificial Opening                 | Procedure     | ICD-10-PCS |
| 3E0Q70M | Introduction of Antineoplastic, Monoclonal Antibody, into Cranial Cavity and Brain, Via Natural or Artificial Opening | Procedure     | ICD-10-PCS |
| 3E0R302 | Introduction of High-dose Interleukin-2 into Spinal Canal, Percutaneous Approach                                      | Procedure     | ICD-10-PCS |
| 3E0R303 | Introduction of Low-dose Interleukin-2 into Spinal Canal, Percutaneous Approach                                       | Procedure     | ICD-10-PCS |
| 3E0R305 | Introduction of Other Antineoplastic into Spinal Canal, Percutaneous Approach                                         | Procedure     | ICD-10-PCS |
| 3E0R30M | Introduction of Antineoplastic, Monoclonal Antibody, into Spinal Canal, Percutaneous Approach                         | Procedure     | ICD-10-PCS |
| 3E0S302 | Introduction of High-dose Interleukin-2 into Epidural Space, Percutaneous Approach                                    | Procedure     | ICD-10-PCS |
| 3E0S303 | Introduction of Low-dose Interleukin-2 into Epidural Space, Percutaneous Approach                                     | Procedure     | ICD-10-PCS |
| 3E0S305 | Introduction of Other Antineoplastic into Epidural Space, Percutaneous Approach                                       | Procedure     | ICD-10-PCS |
| 3E0S30M | Introduction of Antineoplastic, Monoclonal Antibody, into Epidural Space, Percutaneous Approach                       | Procedure     | ICD-10-PCS |
| 3E0U305 | Introduction of Other Antineoplastic into Joints, Percutaneous Approach                                               | Procedure     | ICD-10-PCS |
| 3E0U30M | Introduction of Antineoplastic, Monoclonal Antibody, into Joints, Percutaneous Approach                               | Procedure     | ICD-10-PCS |
| 3E0V305 | Introduction of Other Antineoplastic into Bones, Percutaneous Approach                                                | Procedure     | ICD-10-PCS |
| 3E0V30M | Introduction of Antineoplastic, Monoclonal Antibody, into Bones, Percutaneous Approach                                | Procedure     | ICD-10-PCS |
| 3E0W305 | Introduction of Other Antineoplastic into Lymphatics, Percutaneous Approach                                           | Procedure     | ICD-10-PCS |
| 3E0W30M | Introduction of Antineoplastic, Monoclonal Antibody, into Lymphatics, Percutaneous Approach                           | Procedure     | ICD-10-PCS |
| 3E0Y305 | Introduction of Other Antineoplastic into Pericardial Cavity, Percutaneous Approach                                   | Procedure     | ICD-10-PCS |
| 3E0Y30M | Introduction of Antineoplastic, Monoclonal Antibody, into Pericardial Cavity, Percutaneous Approach                   | Procedure     | ICD-10-PCS |
| 3E0Y705 | Introduction of Other Antineoplastic into Pericardial Cavity, Via Natural or Artificial Opening                       | Procedure     | ICD-10-PCS |
| 3E0Y70M | Introduction of Antineoplastic, Monoclonal Antibody, into Pericardial Cavity, Via Natural or Artificial Opening       | Procedure     | ICD-10-PCS |
| 41.02   | Allogeneic bone marrow transplant with purging                                                                        | Procedure     | ICD-9-CM   |
| 41.07   | Autologous hematopoietic stem cell transplant with purging                                                            | Procedure     | ICD-9-CM   |
| 41.08   | Allogeneic hematopoietic stem cell transplant with purging                                                            | Procedure     | ICD-9-CM   |
| 41.09   | Autologous bone marrow transplant with purging                                                                        | Procedure     | ICD-9-CM   |
| 4180F   | Adjuvant chemotherapy referred, prescribed, or previously received for Stage III colon cancer (ONC)                   | Procedure     | CPT-2      |
| 41825   | Excision of lesion or tumor (except listed above), dentoalveolar structures; without repair                           | Procedure     | CPT-4      |
| 41826   | Excision of lesion or tumor (except listed above), dentoalveolar structures; with simple repair                       | Procedure     | CPT-4      |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                           | Code Category | Code Type |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 41827 | Excision of lesion or tumor (except listed above), dentoalveolar structures; with complex repair                                                                                                                                                      | Procedure     | CPT-4     |
| 4201F | External beam radiotherapy with or without nodal irradiation as adjuvant or salvage therapy for prostate cancer patient (PRCA)                                                                                                                        | Procedure     | CPT-2     |
| 42410 | Excision of parotid tumor or parotid gland; lateral lobe, without nerve dissection                                                                                                                                                                    | Procedure     | CPT-4     |
| 42415 | Excision of parotid tumor or parotid gland; lateral lobe, with dissection and preservation of facial nerve                                                                                                                                            | Procedure     | CPT-4     |
| 42420 | Excision of parotid tumor or parotid gland; total, with dissection and preservation of facial nerve                                                                                                                                                   | Procedure     | CPT-4     |
| 42425 | Excision of parotid tumor or parotid gland; total, en bloc removal with sacrifice of facial nerve                                                                                                                                                     | Procedure     | CPT-4     |
| 42426 | Excision of parotid tumor or parotid gland; total, with unilateral radical neck dissection                                                                                                                                                            | Procedure     | CPT-4     |
| 43216 | Esophagoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps                                                                                                                                      | Procedure     | CPT-4     |
| 43217 | Esophagoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique                                                                                                                                         | Procedure     | CPT-4     |
| 43228 | Esophagoscopy, rigid or flexible; with ablation of tumor(s), polyp(s), or other lesion(s), not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique                                                                          | Procedure     | CPT-4     |
| 43229 | Esophagoscopy, flexible, transoral; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)                                                                                  | Procedure     | CPT-4     |
| 43250 | Esophagogastroduodenoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps                                                                                                                         | Procedure     | CPT-4     |
| 43251 | Esophagogastroduodenoscopy, flexible, transoral; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique                                                                                                                            | Procedure     | CPT-4     |
| 43258 | Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare | Procedure     | CPT-4     |
| 43270 | Esophagogastroduodenoscopy, flexible, transoral; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)                                                                     | Procedure     | CPT-4     |
| 43272 | Endoscopic retrograde cholangiopancreatography (ERCP); with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique                                                      | Procedure     | CPT-4     |
| 43278 | Endoscopic retrograde cholangiopancreatography (ERCP); with ablation of tumor(s), polyp(s), or other lesion(s), including pre- and post-dilation and guide wire passage, when performed                                                               | Procedure     | CPT-4     |
| 43611 | Excision, local; malignant tumor of stomach                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 45160 | Excision of rectal tumor by proctotomy, transsacral or transcoccygeal approach                                                                                                                                                                        | Procedure     | CPT-4     |
| 45170 | Excision of rectal tumor, transanal approach                                                                                                                                                                                                          | Procedure     | CPT-4     |
| 45171 | Excision of rectal tumor, transanal approach; not including muscularis propria (ie, partial thickness)                                                                                                                                                | Procedure     | CPT-4     |
| 45172 | Excision of rectal tumor, transanal approach; including muscularis propria (ie, full thickness)                                                                                                                                                       | Procedure     | CPT-4     |
| 45180 | EXC &/OR ELECTRODESICCATED MALIG TUMOR RECTUM                                                                                                                                                                                                         | Procedure     | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                  | Code      | Code Type |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       | Category                                                                                                                                                                                                     |           |           |
| 45181 | Excision And/or Electrodesiccation Of Malignant Tumor Of                                                                                                                                                     | Procedure | CPT-4     |
| 45190 | Destruction of rectal tumor (eg, electrodesiccation, electrosurgery, laser ablation, laser resection, cryosurgery) transanal approach                                                                        | Procedure | CPT-4     |
| 45308 | Proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by hot biopsy forceps or bipolar cautery                                                                                    | Procedure | CPT-4     |
| 45309 | Proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by snare technique                                                                                                          | Procedure | CPT-4     |
| 45315 | Proctosigmoidoscopy, rigid; with removal of multiple tumors, polyps, or other lesions by hot biopsy forceps, bipolar cautery or snare technique                                                              | Procedure | CPT-4     |
| 45320 | Proctosigmoidoscopy, rigid; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique (eg, laser)                            | Procedure | CPT-4     |
| 45333 | Sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps                                                                                                        | Procedure | CPT-4     |
| 45336 | SIGMOIDOSCOPY; ABLATE TUMOR MUCOSAL LESION                                                                                                                                                                   | Procedure | CPT-4     |
| 45338 | Sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique                                                                                                           | Procedure | CPT-4     |
| 45339 | Sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique                                           | Procedure | CPT-4     |
| 45346 | Sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)                                                    | Procedure | CPT-4     |
| 47380 | Ablation, open, of 1 or more liver tumor(s); radiofrequency                                                                                                                                                  | Procedure | CPT-4     |
| 47381 | Ablation, open, of 1 or more liver tumor(s); cryosurgical                                                                                                                                                    | Procedure | CPT-4     |
| 47382 | Ablation, 1 or more liver tumor(s), percutaneous, radiofrequency                                                                                                                                             | Procedure | CPT-4     |
| 47383 | Ablation, 1 or more liver tumor(s), percutaneous, cryoablation                                                                                                                                               | Procedure | CPT-4     |
| 47710 | EXC BILE DUCT TUMOR W/REPR                                                                                                                                                                                   | Procedure | CPT-4     |
| 47711 | Excision of bile duct tumor, with or without primary repair of bile duct; extrahepatic                                                                                                                       | Procedure | CPT-4     |
| 47712 | Excision of bile duct tumor, with or without primary repair of bile duct; intrahepatic                                                                                                                       | Procedure | CPT-4     |
| 49200 | Excision or destruction, open, intra-abdominal or retroperitoneal tumors or cysts or endometriomas;                                                                                                          | Procedure | CPT-4     |
| 49201 | Excision or destruction, open, intra-abdominal or retroperitoneal tumors or cysts or endometriomas; extensive                                                                                                | Procedure | CPT-4     |
| 49203 | Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor 5 cm diameter or less         | Procedure | CPT-4     |
| 49204 | Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor 5.1-10.0 cm diameter          | Procedure | CPT-4     |
| 49205 | Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor greater than 10.0 cm diameter | Procedure | CPT-4     |
| 49215 | Excision of presacral or sacrococcygeal tumor                                                                                                                                                                | Procedure | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                           | Code Category | Code Type |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 49418 | Insertion of tunneled intraperitoneal catheter (eg, dialysis, intraperitoneal chemotherapy instillation, management of ascites), complete procedure, including imaging guidance, catheter placement, contrast injection when performed, and radiological supervision and interpretation, percutaneous | Procedure     | CPT-4     |
| 50562 | Renal endoscopy through established nephrostomy or pyelostomy, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with resection of tumor                                                                                                              | Procedure     | CPT-4     |
| 50592 | Ablation, 1 or more renal tumor(s), percutaneous, unilateral, radiofrequency                                                                                                                                                                                                                          | Procedure     | CPT-4     |
| 50593 | Ablation, renal tumor(s), unilateral, percutaneous, cryotherapy                                                                                                                                                                                                                                       | Procedure     | CPT-4     |
| 51530 | Cystotomy; for excision of bladder tumor                                                                                                                                                                                                                                                              | Procedure     | CPT-4     |
| 52234 | Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; SMALL bladder tumor(s) (0.5 up to 2.0 cm)                                                                                                                                                           | Procedure     | CPT-4     |
| 52235 | Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; MEDIUM bladder tumor(s) (2.0 to 5.0 cm)                                                                                                                                                             | Procedure     | CPT-4     |
| 52240 | Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; LARGE bladder tumor(s)                                                                                                                                                                              | Procedure     | CPT-4     |
| 52339 | Cystourethroscopy, with ureteroscopy and/or pyeloscopy (includes dilation of the ureter and/or pyeloureteral junction by any method); with resection of tumor                                                                                                                                         | Procedure     | CPT-4     |
| 52355 | Cystourethroscopy, with ureteroscopy and/or pyeloscopy; with resection of ureteral or renal pelvic tumor                                                                                                                                                                                              | Procedure     | CPT-4     |
| 54530 | Orchiectomy, radical, for tumor; inguinal approach                                                                                                                                                                                                                                                    | Procedure     | CPT-4     |
| 54535 | Orchiectomy, radical, for tumor; with abdominal exploration                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 57135 | Excision of vaginal cyst or tumor                                                                                                                                                                                                                                                                     | Procedure     | CPT-4     |
| 58140 | Myomectomy, excision of fibroid tumor(s) of uterus, 1 to 4 intramural myoma(s) with total weight of 250 g or less and/or removal of surface myomas; abdominal approach                                                                                                                                | Procedure     | CPT-4     |
| 58145 | Myomectomy, excision of fibroid tumor(s) of uterus, 1 to 4 intramural myoma(s) with total weight of 250 g or less and/or removal of surface myomas; vaginal approach                                                                                                                                  | Procedure     | CPT-4     |
| 58146 | Myomectomy, excision of fibroid tumor(s) of uterus, 5 or more intramural myomas and/or intramural myomas with total weight greater than 250 g, abdominal approach                                                                                                                                     | Procedure     | CPT-4     |
| 58205 | Total Hysterectomy, Extended, Corpus Cancer, Including Partial                                                                                                                                                                                                                                        | Procedure     | CPT-4     |
| 58575 | Laparoscopy, surgical, total hysterectomy for resection of malignancy (tumor debulking), with omentectomy including salpingo-oophorectomy, unilateral or bilateral, when performed                                                                                                                    | Procedure     | CPT-4     |
| 58952 | Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy; with radical dissection for debulking (ie, radical excision or destruction, intra-abdominal or retroperitoneal tumors)                                                   | Procedure     | CPT-4     |
| 58957 | Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed;                                                                                                                            | Procedure     | CPT-4     |
| 58958 | Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed; with pelvic lymphadenectomy and limited para-aortic lymphadenectomy                                                        | Procedure     | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                         | Code Category | Code Type |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 60545 | Adrenalectomy, partial or complete, or exploration of adrenal gland with or without biopsy, transabdominal, lumbar or dorsal (separate procedure); with excision of adjacent retroperitoneal tumor                                                  | Procedure     | CPT-4     |
| 60600 | Excision of carotid body tumor; without excision of carotid artery                                                                                                                                                                                  | Procedure     | CPT-4     |
| 60605 | Excision of carotid body tumor; with excision of carotid artery                                                                                                                                                                                     | Procedure     | CPT-4     |
| 61340 | Subtemporal cranial decompression (pseudotumor cerebri, slit ventricle syndrome)                                                                                                                                                                    | Procedure     | CPT-4     |
| 61500 | Craniectomy; with excision of tumor or other bone lesion of skull                                                                                                                                                                                   | Procedure     | CPT-4     |
| 6150F | Patient not receiving a first course of anti-TNF (tumor necrosis factor) therapy (IBD)                                                                                                                                                              | Procedure     | CPT-2     |
| 61510 | Craniectomy, trephination, bone flap craniotomy; for excision of brain tumor, supratentorial, except meningioma                                                                                                                                     | Procedure     | CPT-4     |
| 61517 | Implantation of brain intracavitary chemotherapy agent (List separately in addition to code for primary procedure)                                                                                                                                  | Procedure     | CPT-4     |
| 61518 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; except meningioma, cerebellopontine angle tumor, or midline tumor at base of skull                                                                                      | Procedure     | CPT-4     |
| 61519 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; meningioma                                                                                                                                                              | Procedure     | CPT-4     |
| 61520 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; cerebellopontine angle tumor                                                                                                                                            | Procedure     | CPT-4     |
| 61521 | Craniectomy for excision of brain tumor, infratentorial or posterior fossa; midline tumor at base of skull                                                                                                                                          | Procedure     | CPT-4     |
| 61526 | Craniectomy, bone flap craniotomy, transtemporal (mastoid) for excision of cerebellopontine angle tumor;                                                                                                                                            | Procedure     | CPT-4     |
| 61530 | Craniectomy, bone flap craniotomy, transtemporal (mastoid) for excision of cerebellopontine angle tumor; combined with middle/posterior fossa craniotomy/craniectomy                                                                                | Procedure     | CPT-4     |
| 61545 | Craniotomy with elevation of bone flap; for excision of craniopharyngioma                                                                                                                                                                           | Procedure     | CPT-4     |
| 61546 | Craniotomy for hypophysectomy or excision of pituitary tumor, intracranial approach                                                                                                                                                                 | Procedure     | CPT-4     |
| 61548 | Hypophysectomy or excision of pituitary tumor, transnasal or transseptal approach, nonstereotactic                                                                                                                                                  | Procedure     | CPT-4     |
| 61624 | Transcatheter permanent occlusion or embolization (eg, for tumor destruction, to achieve hemostasis, to occlude a vascular malformation), percutaneous, any method; central nervous system (intracranial, spinal cord)                              | Procedure     | CPT-4     |
| 61626 | Transcatheter permanent occlusion or embolization (eg, for tumor destruction, to achieve hemostasis, to occlude a vascular malformation), percutaneous, any method; non-central nervous system, head or neck (extracranial, brachiocephalic branch) | Procedure     | CPT-4     |
| 62164 | Neuroendoscopy, intracranial; with excision of brain tumor, including placement of external ventricular catheter for drainage                                                                                                                       | Procedure     | CPT-4     |
| 62165 | Neuroendoscopy, intracranial; with excision of pituitary tumor, transnasal or trans-sphenoidal approach                                                                                                                                             | Procedure     | CPT-4     |
| 63101 | Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); thoracic, single segment                 | Procedure     | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                          | Code Category | Code Type |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 63102 | Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); lumbar, single segment                                                                                    | Procedure     | CPT-4     |
| 63103 | Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); thoracic or lumbar, each additional segment (List separately in addition to code for primary procedure)   | Procedure     | CPT-4     |
| 67208 | Destruction of localized lesion of retina (eg, macular edema, tumors), 1 or more sessions; cryotherapy, diathermy                                                                                                                                                                                                    | Procedure     | CPT-4     |
| 67210 | Destruction of localized lesion of retina (eg, macular edema, tumors), 1 or more sessions; photocoagulation                                                                                                                                                                                                          | Procedure     | CPT-4     |
| 67218 | Destruction of localized lesion of retina (eg, macular edema, tumors), 1 or more sessions; radiation by implantation of source (includes removal of source)                                                                                                                                                          | Procedure     | CPT-4     |
| 68500 | Excision of lacrimal gland (dacryoadenectomy), except for tumor; total                                                                                                                                                                                                                                               | Procedure     | CPT-4     |
| 68505 | Excision of lacrimal gland (dacryoadenectomy), except for tumor; partial                                                                                                                                                                                                                                             | Procedure     | CPT-4     |
| 68540 | Excision of lacrimal gland tumor; frontal approach                                                                                                                                                                                                                                                                   | Procedure     | CPT-4     |
| 68550 | Excision of lacrimal gland tumor; involving osteotomy                                                                                                                                                                                                                                                                | Procedure     | CPT-4     |
| 69535 | Resection temporal bone, external approach                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 69540 | Excision aural polyp                                                                                                                                                                                                                                                                                                 | Procedure     | CPT-4     |
| 69550 | Excision aural glomus tumor; transcanal                                                                                                                                                                                                                                                                              | Procedure     | CPT-4     |
| 69552 | Excision aural glomus tumor; transmastoid                                                                                                                                                                                                                                                                            | Procedure     | CPT-4     |
| 69554 | Excision aural glomus tumor; extended (extratemporal)                                                                                                                                                                                                                                                                | Procedure     | CPT-4     |
| 69970 | Removal of tumor, temporal bone                                                                                                                                                                                                                                                                                      | Procedure     | CPT-4     |
| 70557 | Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material                                                                                             | Procedure     | CPT-4     |
| 70558 | Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); with contrast material(s)                                                                                             | Procedure     | CPT-4     |
| 70559 | Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material(s), followed by contrast material(s) and further sequences                                  | Procedure     | CPT-4     |
| 78655 | RADIOPHARM IDENT EYE TUMOR                                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 78800 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, single area (eg, head, neck, chest, pelvis), single day imaging                                                             | Procedure     | CPT-4     |
| 78801 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, 2 or more areas (eg, abdomen and pelvis, head and chest), 1 or more days imaging or single area imaging over 2 or more days | Procedure     | CPT-4     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Code Category | Code Type |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 78802 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, whole body, single day imaging                                                                                                                                                                                                                                                                                                                                 | Procedure     | CPT-4     |
| 78803 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT), single area (eg, head, neck, chest, pelvis) or acquisition, single day imaging                                                                                                                                                                                                                                                                    | Procedure     | CPT-4     |
| 78804 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, whole body, requiring 2 or more days imaging                                                                                                                                                                                                                                                                                                                   | Procedure     | CPT-4     |
| 78810 | Tumor imaging, positron emission tomography (PET), metabolic evaluation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Procedure     | CPT-4     |
| 78811 | Positron emission tomography (PET) imaging; limited area (eg, chest, head/neck)                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Procedure     | CPT-4     |
| 78812 | Positron emission tomography (PET) imaging; skull base to mid-thigh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Procedure     | CPT-4     |
| 78813 | Positron emission tomography (PET) imaging; whole body                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Procedure     | CPT-4     |
| 78814 | Positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization imaging; limited area (eg, chest, head/neck)                                                                                                                                                                                                                                                                                                                                                              | Procedure     | CPT-4     |
| 78815 | Positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization imaging; skull base to mid-                                                                                                                                                                                                                                                                                                                                                                               | Procedure     | CPT-4     |
| 78816 | Positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization imaging; whole body                                                                                                                                                                                                                                                                                                                                                                                       | Procedure     | CPT-4     |
| 78830 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT) with concurrently acquired computed tomography (CT) transmission scan for anatomical review, localization and determination/detection of pathology, single area (eg, head, neck, chest, pelvis) or acquisition, single day imaging                                                                                                                 | Procedure     | CPT-4     |
| 78831 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT), minimum 2 areas (eg, pelvis and knees, chest and abdomen) or separate acquisitions (eg, lung ventilation and perfusion), single day imaging, or single area or acquisition over 2 or more days                                                                                                                                                    | Procedure     | CPT-4     |
| 78832 | Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT) with concurrently acquired computed tomography (CT) transmission scan for anatomical review, localization and determination/detection of pathology, minimum 2 areas (eg, pelvis and knees, chest and abdomen) or separate acquisitions (eg, lung ventilation and perfusion), single day imaging, or single area or acquisition over 2 or more days | Procedure     | CPT-4     |
| 78835 | Radiopharmaceutical quantification measurement(s) single area (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                                                                                                                                                                                                               | Procedure     | CPT-4     |
| 78999 | Unlisted miscellaneous procedure, diagnostic nuclear medicine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Procedure     | CPT-4     |
| 96400 | Chemotherapy administration, subcutaneous or intramuscular, with or without local anesthesia                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Procedure     | CPT-4     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                    | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 96401       | Chemotherapy administration, subcutaneous or intramuscular; non-hormonal anti-neoplastic                                                                                                              | Procedure            | CPT-4            |
| 96402       | Chemotherapy administration, subcutaneous or intramuscular; hormonal anti-neoplastic                                                                                                                  | Procedure            | CPT-4            |
| 96405       | Chemotherapy administration; intralesional, up to and including 7 lesions                                                                                                                             | Procedure            | CPT-4            |
| 96406       | Chemotherapy administration; intralesional, more than 7 lesions                                                                                                                                       | Procedure            | CPT-4            |
| 96408       | Chemotherapy administration, intravenous; push technique                                                                                                                                              | Procedure            | CPT-4            |
| 96409       | Chemotherapy administration; intravenous, push technique, single or initial substance/drug                                                                                                            | Procedure            | CPT-4            |
| 96410       | Chemotherapy administration, intravenous; infusion technique, up to one hour                                                                                                                          | Procedure            | CPT-4            |
| 96411       | Chemotherapy administration; intravenous, push technique, each additional substance/drug (List separately in addition to code for primary procedure)                                                  | Procedure            | CPT-4            |
| 96412       | Chemotherapy administration, intravenous; infusion technique, one to 8 hours, each additional hour (List separately in addition to code for primary procedure)                                        | Procedure            | CPT-4            |
| 96413       | Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug                                                                                           | Procedure            | CPT-4            |
| 96414       | Chemotherapy administration, intravenous; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump                               | Procedure            | CPT-4            |
| 96415       | Chemotherapy administration, intravenous infusion technique; each additional hour (List separately in addition to code for primary procedure)                                                         | Procedure            | CPT-4            |
| 96416       | Chemotherapy administration, intravenous infusion technique; initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump                       | Procedure            | CPT-4            |
| 96417       | Chemotherapy administration, intravenous infusion technique; each additional sequential infusion (different substance/drug), up to 1 hour (List separately in addition to code for primary procedure) | Procedure            | CPT-4            |
| 96420       | Chemotherapy administration, intra-arterial; push technique                                                                                                                                           | Procedure            | CPT-4            |
| 96422       | Chemotherapy administration, intra-arterial; infusion technique, up to 1 hour                                                                                                                         | Procedure            | CPT-4            |
| 96423       | Chemotherapy administration, intra-arterial; infusion technique, each additional hour (List separately in addition to code for primary procedure)                                                     | Procedure            | CPT-4            |
| 96425       | Chemotherapy administration, intra-arterial; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump                            | Procedure            | CPT-4            |
| 96440       | Chemotherapy administration into pleural cavity, requiring and including thoracentesis                                                                                                                | Procedure            | CPT-4            |
| 96445       | Chemotherapy administration into peritoneal cavity, requiring and including peritoneocentesis                                                                                                         | Procedure            | CPT-4            |
| 96446       | Chemotherapy administration into the peritoneal cavity via indwelling port or catheter                                                                                                                | Procedure            | CPT-4            |
| 96450       | Chemotherapy administration, into CNS (eg, intrathecal), requiring and including spinal puncture                                                                                                      | Procedure            | CPT-4            |
| 96500       | Chemotherapy Injection, Intravenous, Single Premixed Agent,                                                                                                                                           | Procedure            | CPT-4            |
| 96501       | Chemotherapy Injection, Intravenous, Single Premixed Agent,                                                                                                                                           | Procedure            | CPT-4            |
| 96504       | Chemotherapy Injection, Intravenous, Multiple Premixed Agents,                                                                                                                                        | Procedure            | CPT-4            |
| 96505       | Chemotherapy Injection, Intravenous, Multiple Premixed Agents,                                                                                                                                        | Procedure            | CPT-4            |
| 96508       | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                            | Procedure            | CPT-4            |
| 96509       | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                            | Procedure            | CPT-4            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                        | Code Category | Code Type |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 96510 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure     | CPT-4     |
| 96511 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure     | CPT-4     |
| 96512 | Chemotherapy Injection, Intravenous, Complex, Using One Or                                                                                                                                                         | Procedure     | CPT-4     |
| 96524 | Chemotherapy Injection, Complex, Administered By Physician,                                                                                                                                                        | Procedure     | CPT-4     |
| 96526 | Chemotherapy Injection, Complex, Administered By Physician,                                                                                                                                                        | Procedure     | CPT-4     |
| 96535 | Chemotherapy Injection, Complex, Requiring Thoracentesis                                                                                                                                                           | Procedure     | CPT-4     |
| 96538 | Chemotherapy Injection, Requiring Lumbar Puncture, Administered                                                                                                                                                    | Procedure     | CPT-4     |
| 96540 | Chemotherapy Injection, Intrathecal Via Reservoir, Single Or                                                                                                                                                       | Procedure     | CPT-4     |
| 96542 | Chemotherapy injection, subarachnoid or intraventricular via subcutaneous reservoir, single or multiple agents                                                                                                     | Procedure     | CPT-4     |
| 96545 | Provision of chemotherapy agent                                                                                                                                                                                    | Procedure     | CPT-4     |
| 96549 | Unlisted chemotherapy procedure                                                                                                                                                                                    | Procedure     | CPT-4     |
| 96910 | Photochemotherapy; tar and ultraviolet B (Goeckerman treatment) or petrolatum and ultraviolet B                                                                                                                    | Procedure     | CPT-4     |
| 96912 | Photochemotherapy; psoralens and ultraviolet A (PUVA)                                                                                                                                                              | Procedure     | CPT-4     |
| 96913 | Photochemotherapy (Goeckerman and/or PUVA) for severe photoresponsive dermatoses requiring at least 4-8 hours of care under direct supervision of the physician (includes application of medication and dressings) | Procedure     | CPT-4     |
| 99.25 | Injection or infusion of cancer chemotherapeutic substance                                                                                                                                                         | Procedure     | ICD-9-CM  |
| 99.28 | Injection or infusion of biological response modifier [BRM] as an antineoplastic agent                                                                                                                             | Procedure     | ICD-9-CM  |
| 99555 | Home infusion for chemotherapy, per visit                                                                                                                                                                          | Procedure     | CPT-4     |
| A4555 | Electrode/transducer for use with electrical stimulation device used for cancer treatment, replacement only                                                                                                        | Procedure     | HCPCS     |
| A9545 | Iodine I-131 tositumomab, therapeutic, per treatment dose                                                                                                                                                          | Procedure     | HCPCS     |
| C1084 | Denileukin diftitox, 300 mcg, ontak iv                                                                                                                                                                             | Procedure     | HCPCS     |
| C1086 | Temozolomide, 5 mg, temodar                                                                                                                                                                                        | Procedure     | HCPCS     |
| C1166 | Injection, cytarabine liposome, per 10 mg                                                                                                                                                                          | Procedure     | HCPCS     |
| C1167 | Injection, epirubicin HCl, 2 mg                                                                                                                                                                                    | Procedure     | HCPCS     |
| C1178 | Injection, busulfan, per 6 mg                                                                                                                                                                                      | Procedure     | HCPCS     |
| C8953 | Chemotherapy administration, intravenous; push technique                                                                                                                                                           | Procedure     | HCPCS     |
| C8954 | Chemotherapy administration, intravenous; infusion technique, up to one hour                                                                                                                                       | Procedure     | HCPCS     |
| C8955 | Chemotherapy administration, intravenous; infusion technique, each additional hour (List separately in addition to C8954)                                                                                          | Procedure     | HCPCS     |
| C9004 | Injection, gemtuzumab ozogamicin, per 5 mg                                                                                                                                                                         | Procedure     | HCPCS     |
| C9012 | Injection, arsenic trioxide, per 1 mg/kg                                                                                                                                                                           | Procedure     | HCPCS     |
| C9017 | Lomustine, 10 mg                                                                                                                                                                                                   | Procedure     | HCPCS     |
| C9021 | Injection, obinutuzumab, 10 mg                                                                                                                                                                                     | Procedure     | HCPCS     |
| C9024 | Injection, liposomal, 1 mg daunorubicin and 2.27 mg cytarabine                                                                                                                                                     | Procedure     | HCPCS     |
| C9042 | Injection, bendamustine HCl (Belrapzo), 1 mg                                                                                                                                                                       | Procedure     | HCPCS     |
| C9044 | Injection, cemiplimab-rwlc, 1 mg                                                                                                                                                                                   | Procedure     | HCPCS     |
| C9045 | Injection, moxetumomab pasudotox-tdfk, 0.01 mg                                                                                                                                                                     | Procedure     | HCPCS     |
| C9049 | Injection, tagraxofusp-erzs, 10 mcg                                                                                                                                                                                | Procedure     | HCPCS     |
| C9050 | Injection, emapalumab-lzsg, 1 mg                                                                                                                                                                                   | Procedure     | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                      | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                  | Category  | Code Type |
| C9110 | Injection, alemtuzumab, per 10 mg/ ml                                                                                                                            | Procedure | HCPCS     |
| C9127 | Injection, paclitaxel protein-bound particles, per 1 mg                                                                                                          | Procedure | HCPCS     |
| C9129 | Injection, clofarabine, per 1 mg                                                                                                                                 | Procedure | HCPCS     |
| C9205 | Injection, oxaliplatin, per 5 mg                                                                                                                                 | Procedure | HCPCS     |
| C9207 | Injection, bortezomib, per 3.5 mg                                                                                                                                | Procedure | HCPCS     |
| C9213 | Injection, pemetrexed, per 10 mg                                                                                                                                 | Procedure | HCPCS     |
| C9214 | Injection, bevacizumab, per 10 mg                                                                                                                                | Procedure | HCPCS     |
| C9215 | Injection, cetuximab, per 10 mg                                                                                                                                  | Procedure | HCPCS     |
| C9218 | Injection, azacitidine, per 1 mg                                                                                                                                 | Procedure | HCPCS     |
| C9231 | Injection, decitabine, per 1 mg                                                                                                                                  | Procedure | HCPCS     |
| C9235 | Injection, panitumumab, 10 mg                                                                                                                                    | Procedure | HCPCS     |
| C9239 | Injection, temsirolimus, 1 mg                                                                                                                                    | Procedure | HCPCS     |
| C9240 | Injection, ixabepilone, 1 mg                                                                                                                                     | Procedure | HCPCS     |
| C9243 | Injection, bendamustine hcl, 1 mg                                                                                                                                | Procedure | HCPCS     |
| C9253 | Injection, temozolomide, 1mg                                                                                                                                     | Procedure | HCPCS     |
| C9259 | Injection, pralatrexate, 1 mg                                                                                                                                    | Procedure | HCPCS     |
| C9260 | Injection, ofatumumab, 10 mg                                                                                                                                     | Procedure | HCPCS     |
| C9262 | Fludarabine phosphate, oral, 1 mg                                                                                                                                | Procedure | HCPCS     |
| C9265 | Injection, romidepsin, 1 mg                                                                                                                                      | Procedure | HCPCS     |
| C9273 | Sipuleucel-T, minimum of 50 million autologous CD54+ cells activated with PAP-GM-CSF, including leukapheresis and all other preparatory procedures, per infusion | Procedure | HCPCS     |
| C9276 | Injection, cabazitaxel, 1 mg                                                                                                                                     | Procedure | HCPCS     |
| C9280 | Injection, eribulin mesylate, 1 mg                                                                                                                               | Procedure | HCPCS     |
| C9284 | Injection, ipilimumab, 1 mg                                                                                                                                      | Procedure | HCPCS     |
| C9287 | Injection, brentuximab vedotin, 1 mg                                                                                                                             | Procedure | HCPCS     |
| C9289 | Injection, asparaginase Erwinia chrysanthemi, 1,000 IU                                                                                                           | Procedure | HCPCS     |
| C9292 | Injection, pertuzumab, 10 mg                                                                                                                                     | Procedure | HCPCS     |
| C9295 | Injection, carfilzomib, 1 mg                                                                                                                                     | Procedure | HCPCS     |
| C9297 | Injection, omacetaxine mepesuccinate, 0.01 mg                                                                                                                    | Procedure | HCPCS     |
| C9414 | Etoposide; oral, 50 mg, brand name                                                                                                                               | Procedure | HCPCS     |
| C9415 | Doxorubicin HCl, 10 mg, brand name                                                                                                                               | Procedure | HCPCS     |
| C9417 | Bleomycin sulfate, 15 units, brand name                                                                                                                          | Procedure | HCPCS     |
| C9418 | Cisplatin, powder or solution, per 10 mg, brand name                                                                                                             | Procedure | HCPCS     |
| C9419 | Injection, cladribine, per 1 mg, brand name                                                                                                                      | Procedure | HCPCS     |
| C9420 | Cyclophosphamide, 100 mg, brand name                                                                                                                             | Procedure | HCPCS     |
| C9421 | Cyclophosphamide, lyophilized, 100 mg, brand name                                                                                                                | Procedure | HCPCS     |
| C9422 | Cytarabine, 100 mg, brand name                                                                                                                                   | Procedure | HCPCS     |
| C9423 | Dacarbazine, 100 mg, brand name                                                                                                                                  | Procedure | HCPCS     |
| C9424 | Daunorubicin, 10 mg                                                                                                                                              | Procedure | HCPCS     |
| C9425 | Etoposide, 10 mg, brand name                                                                                                                                     | Procedure | HCPCS     |
| C9426 | Floxuridine, 500 mg, brand name                                                                                                                                  | Procedure | HCPCS     |
| C9427 | Ifosfamide, 1 gm, brand name                                                                                                                                     | Procedure | HCPCS     |
| C9429 | Idarubicin HCl, 5 mg, brand name                                                                                                                                 | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                          | Code      |           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                      | Category  | Code Type |
| C9431 | Paclitaxel, 30 mg, brand name                                                                                                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |
| C9432 | Mitomycin, 5 mg, brand name                                                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| C9433 | Thiotepa, 15 mg, brand name                                                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| C9437 | Carmustine, brand name, 100 mg                                                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| C9440 | Vinorelbine tartrate, brand name, per 10 mg                                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| C9474 | Injection, irinotecan liposome, 1 mg                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| D7440 | excision of malignant tumor - lesion diameter up to 1.25 cm                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| D7441 | excision of malignant tumor - lesion diameter greater than 1.25 cm                                                                                                                                                                                                                                                                                                                                   | Procedure | HCPCS     |
| G0068 | Professional services for the administration of anti-infective, pain management, chelation, pulmonary hypertension, inotropic, or other intravenous infusion drug or biological (excluding chemotherapy or other highly complex drug or biological) for each infusion drug administration calendar day in the individual's home, each 15 min                                                         | Procedure | HCPCS     |
| G0070 | Professional services for the administration of intravenous chemotherapy or other intravenous highly complex drug or biological infusion for each infusion drug administration calendar day in the individual's home, each 15 min                                                                                                                                                                    | Procedure | HCPCS     |
| G0088 | Professional services, initial visit, for the administration of anti-infective, pain management, chelation, pulmonary hypertension, inotropic, or other intravenous infusion drug or biological (excluding chemotherapy or other highly complex drug or biological) for each infusion drug administration calendar day in the individual's home, each 15 min                                         | Procedure | HCPCS     |
| G0090 | Professional services, initial visit, for the administration of intravenous chemotherapy or other highly complex infusion drug or biological for each infusion drug administration calendar day in the individual's home, each 15 min                                                                                                                                                                | Procedure | HCPCS     |
| G0292 | Administration(s) of experimental drug(s) only in a medicare qualifying clinical trial (includes administration for chemotherapy and other types of therapy via infusion and/or other than infusion), per day                                                                                                                                                                                        | Procedure | HCPCS     |
| G0355 | Chemotherapy administration, subcutaneous or intramuscular nonhormonal antineoplastic                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G0359 | Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug                                                                                                                                                                                                                                                                                        | Procedure | HCPCS     |
| G0361 | Initiation of prolonged chemotherapy infusion (more than eight hours), requiring use of a portable or implantable pump                                                                                                                                                                                                                                                                               | Procedure | HCPCS     |
| G0498 | Chemotherapy administration, intravenous infusion technique; initiation of infusion in the office/clinic setting using office/clinic pump/supplies, with continuation of the infusion in the community setting (e.g., home, domiciliary, rest home or assisted living) using a portable pump provided by the office/clinic, includes follow up office/clinic visit at the conclusion of the infusion | Procedure | HCPCS     |
| G2129 | Procedure related BP's not taken during an outpatient visit. Examples include same day surgery, ambulatory service center, GI, lab, dialysis, infusion center, chemotherapy                                                                                                                                                                                                                          | Procedure | HCPCS     |
| G2206 | Patient received adjuvant treatment course including both chemotherapy and HER2-targeted therapy                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                            | Code      | Code Type |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Category  |           |
| G2207 | Reason for not administering adjuvant treatment course including both chemotherapy and HER2-targeted therapy (e.g., poor performance status (ECOG 3-4; Karnofsky <=50), cardiac contraindications, insufficient renal function, insufficient hepatic function, other active or secondary cancer diagnoses, other medical contraindications, patients who died during initial treatment course or transferred during or after initial treatment course) | Procedure | HCPCS     |
| G2208 | Patient did not receive adjuvant treatment course including both chemotherapy and HER2-targeted therapy                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G3001 | Administration and supply of tositumomab, 450 mg                                                                                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| G8371 | Chemotherapy documented as not received or prescribed for Stage III colon cancer                                                                                                                                                                                                                                                                                                                                                                       | Procedure | HCPCS     |
| G8372 | Chemotherapy documented as received or prescribed for Stage III colon cancer patients                                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| G8373 | Chemotherapy plan documented prior to chemotherapy administration                                                                                                                                                                                                                                                                                                                                                                                      | Procedure | HCPCS     |
| G8374 | Chemotherapy plan not documented prior to chemotherapy administration                                                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| G8375 | Chronic lymphocytic leukemia (CLL) patient with no documentation of baseline flow cytometry performed                                                                                                                                                                                                                                                                                                                                                  | Procedure | HCPCS     |
| G8376 | Clinician documentation that breast cancer patient was not eligible for tamoxifen or aromatase inhibitor therapy measure                                                                                                                                                                                                                                                                                                                               | Procedure | HCPCS     |
| G8377 | Clinician documentation that colon cancer patient is not eligible for chemotherapy measure                                                                                                                                                                                                                                                                                                                                                             | Procedure | HCPCS     |
| G8380 | For patients with ER or PR positive, Stage IC-III breast cancer, clinician did not document that the patient received or was prescribed tamoxifen or aromatase inhibitor                                                                                                                                                                                                                                                                               | Procedure | HCPCS     |
| G8381 | For patients with ER or PR positive, Stage IC-III breast cancer, clinician documented or prescribed that the patient is receiving tamoxifen or aromatase inhibitor                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| G8384 | Baseline cytogenetic testing not performed in patients with myelodysplastic syndrome (MDS) or acute leukemias                                                                                                                                                                                                                                                                                                                                          | Procedure | HCPCS     |
| G8464 | Clinician documented that prostate cancer patient is not an eligible candidate for adjuvant hormonal therapy; low or intermediate risk of recurrence or risk of recurrence not determined                                                                                                                                                                                                                                                              | Procedure | HCPCS     |
| G8518 | Clinical stage prior to surgery for lung cancer and esophageal cancer resection was recorded                                                                                                                                                                                                                                                                                                                                                           | Procedure | HCPCS     |
| G8519 | Clinician documented that patient was not eligible for clinical stage prior to surgery for lung cancer and esophageal cancer resection measure                                                                                                                                                                                                                                                                                                         | Procedure | HCPCS     |
| G8520 | Clinician stage prior to surgery for lung cancer and esophageal cancer resection was not recorded, reason not specified                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G8875 | Clinician diagnosed breast cancer preoperatively by a minimally invasive biopsy method                                                                                                                                                                                                                                                                                                                                                                 | Procedure | HCPCS     |
| G8879 | Clinically node negative (T1N0M0 or T2N0M0) invasive breast cancer                                                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |
| G8881 | Stage of breast cancer is greater than T1N0M0 or T2N0M0                                                                                                                                                                                                                                                                                                                                                                                                | Procedure | HCPCS     |
| G8927 | Adjuvant chemotherapy referred, prescribed or previously received for AJCC stage III, colon cancer                                                                                                                                                                                                                                                                                                                                                     | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Code Category | Code Type |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| G8928 | Adjuvant chemotherapy not prescribed or previously received, for documented reasons (e.g., medical co-morbidities, diagnosis date more than 5 years prior to the current visit date, patient's diagnosis date is within 120 days of the end of the 12 month reporting period, patient's cancer has metastasized, medical contraindication/allergy, poor performance status, other medical reasons, patient refusal, other patient reasons, patient is currently enrolled in a clinical trial that precludes prescription of chemotherapy, other system reasons) | Procedure     | HCPCS     |
| G8929 | Adjuvant chemotherapy not prescribed or previously received, reason not given                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedure     | HCPCS     |
| G8975 | Documentation of medical reason(s) for patient having a hemoglobin level < 10 g/dl (e.g., patients who have nonrenal etiologies of anemia [e.g., sickle cell anemia or other hemoglobinopathies, hypersplenism, primary bone marrow disease, anemia related to chemotherapy for diagnosis of malignancy, postoperative bleeding, active bloodstream or peritoneal infection], other medical reasons)                                                                                                                                                            | Procedure     | HCPCS     |
| G9021 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                               | Procedure     | HCPCS     |
| G9022 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                 | Procedure     | HCPCS     |
| G9023 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                              | Procedure     | HCPCS     |
| G9024 | Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                | Procedure     | HCPCS     |
| G9025 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                 | Procedure     | HCPCS     |
| G9026 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                   | Procedure     | HCPCS     |
| G9027 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                | Procedure     | HCPCS     |
| G9028 | Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                                                  | Procedure     | HCPCS     |
| G9029 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                             | Procedure     | HCPCS     |
| G9030 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)                                                                                                                                                                                                                                                                                                                                               | Procedure     | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                         | Code Category | Code Type |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| G9031 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 3: quite a bit (for use in a Medicare approved demonstration project)                                                                                                                | Procedure     | HCPCS     |
| G9032 | Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 4: very much (for use in a Medicare-approved demonstration project)                                                                                                                  | Procedure     | HCPCS     |
| G9050 | Oncology; primary focus of visit; work-up, evaluation, or staging at the time of cancer diagnosis or recurrence (for use in a Medicare-approved demonstration project)                                                                                                                                                              | Procedure     | HCPCS     |
| G9051 | Oncology; primary focus of visit; treatment decision-making after disease is staged or restaged, discussion of treatment options, supervising/coordinating active cancer-directed therapy or managing consequences of cancer-directed therapy (for use in a Medicare-approved demonstration project)                                | Procedure     | HCPCS     |
| G9052 | Oncology; primary focus of visit; surveillance for disease recurrence for patient who has completed definitive cancer-directed therapy and currently lacks evidence of recurrent disease; cancer-directed therapy might be considered in the future (for use in a Medicare-approved demonstration project)                          | Procedure     | HCPCS     |
| G9053 | Oncology; primary focus of visit; expectant management of patient with evidence of cancer for whom no cancer-directed therapy is being administered or arranged at present; cancer-directed therapy might be considered in the future (for use in a Medicare-approved demonstration project)                                        | Procedure     | HCPCS     |
| G9054 | Oncology; primary focus of visit; supervising, coordinating or managing care of patient with terminal cancer or for whom other medical illness prevents further cancer treatment; includes symptom management, end-of-life care planning, management of palliative therapies (for use in a Medicare-approved demonstration project) | Procedure     | HCPCS     |
| G9063 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage I (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                 | Procedure     | HCPCS     |
| G9064 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage II (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                | Procedure     | HCPCS     |
| G9065 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage III a (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                             | Procedure     | HCPCS     |
| G9066 | Oncology; disease status; limited to nonsmall cell lung cancer; Stage III B-IV at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                                   | Procedure     | HCPCS     |
| G9067 | Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                                | Procedure     | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                 | Code Category | Code Type |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| G9069 | Oncology; disease status; small cell lung cancer, limited to small cell and combined small cell/nonsmall cell; extensive Stage at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                           | Procedure     | HCPCS     |
| G9070 | Oncology; disease status; small cell lung cancer, limited to small cell and combined small cell/nonsmall; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                              | Procedure     | HCPCS     |
| G9071 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage I or Stage IIA-IIB; or T3, N1, M0; and ER and/or PR positive; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure     | HCPCS     |
| G9072 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage I, or Stage IIA-IIB; or T3, N1, M0; and ER and PR negative; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)   | Procedure     | HCPCS     |
| G9073 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage IIIA-IIIIB; and not T3, N1, M0; and ER and/or PR positive; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)    | Procedure     | HCPCS     |
| G9074 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; Stage IIIA-IIIIB; and not T3, N1, M0; and ER and PR negative; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)       | Procedure     | HCPCS     |
| G9075 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                         | Procedure     | HCPCS     |
| G9076 | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; extent of disease unknown, under evaluation, presurgical or not listed (for use in a Medicare-approved demonstration project)                                                                 | Procedure     | HCPCS     |
| G9077 | Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T1-T2c and Gleason 2-7 and PSA < or equal to 20 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                       | Procedure     | HCPCS     |
| G9078 | Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T2 or T3a Gleason 8-10 or PSA > 20 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                    | Procedure     | HCPCS     |
| G9079 | Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T3b-T4, any N; any T, N1 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                              | Procedure     | HCPCS     |
| G9080 | Oncology; disease status; prostate cancer, limited to adenocarcinoma; after initial treatment with rising PSA or failure of PSA decline (for use in a Medicare-approved demonstration project)                                                                                                                                              | Procedure     | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                      | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| G9081       | Oncology; disease status; prostate cancer, limited to adenocarcinoma, non-castrate, incompletely castrate; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)                                                                                                                                | Procedure            | HCPCS            |
| G9082       | Oncology; disease status; prostate cancer, limited to adenocarcinoma; castrate; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)                                                                                                                                                           | Procedure            | HCPCS            |
| G9083       | Oncology; disease status; prostate cancer, limited to adenocarcinoma; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                              | Procedure            | HCPCS            |
| G9084       | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-3, N0, M0 with no evidence of disease progression, recurrence or metastases (for use in a Medicare-approved demonstration project)                                           | Procedure            | HCPCS            |
| G9085       | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T4, N0, M0 with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                            | Procedure            | HCPCS            |
| G9086       | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-4, N1-2, M0 with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                        | Procedure            | HCPCS            |
| G9087       | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive with current clinical, radiologic, or biochemical evidence of disease (for use in a Medicare-approved demonstration project)                                | Procedure            | HCPCS            |
| G9088       | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive without current clinical, radiologic, or biochemical evidence of disease (for use in a Medicare-approved demonstration project)                             | Procedure            | HCPCS            |
| G9089       | Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress or not listed (for use in a Medicare-approved demonstration project)                                                                                                        | Procedure            | HCPCS            |
| G9090       | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-2, N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)  | Procedure            | HCPCS            |
| G9091       | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T3, N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)    | Procedure            | HCPCS            |
| G9092       | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-3, N1-2, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence or metastases (for use in a Medicare-approved demonstration project) | Procedure            | HCPCS            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                         | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| G9093       | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T4, any N, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                    | Procedure            | HCPCS            |
| G9094       | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                        | Procedure            | HCPCS            |
| G9095       | Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress or not listed (for use in a Medicare-approved demonstration project)                                                                                                                          | Procedure            | HCPCS            |
| G9096       | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease initially established as T1-T3, N0-N1 or NX (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure            | HCPCS            |
| G9097       | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease initially established as T4, any N, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)      | Procedure            | HCPCS            |
| G9098       | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                          | Procedure            | HCPCS            |
| G9099       | Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                           | Procedure            | HCPCS            |
| G9100       | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; post R0 resection (with or without neoadjuvant therapy) with no evidence of disease recurrence, progression, or metastases (for use in a Medicare-approved demonstration project)                                                                            | Procedure            | HCPCS            |
| G9101       | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; post R1 or R2 resection (with or without neoadjuvant therapy) with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)                                                                                  | Procedure            | HCPCS            |
| G9102       | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; clinical or pathologic M0, unresectable with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)                                                                                                        | Procedure            | HCPCS            |
| G9103       | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; clinical or pathologic M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                 | Procedure            | HCPCS            |
| G9104       | Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                         | Procedure            | HCPCS            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| G9105       | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma as predominant cell type; post R0 resection without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                        | Procedure            | HCPCS            |
| G9106       | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; post R1 or R2 resection with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                                                       | Procedure            | HCPCS            |
| G9107       | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; unresectable at diagnosis, M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                                                                            | Procedure            | HCPCS            |
| G9108       | Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                                                                        | Procedure            | HCPCS            |
| G9109       | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease initially established as T1-T2 and N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)     | Procedure            | HCPCS            |
| G9110       | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease initially established as T3-4 and/or N1-3, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project) | Procedure            | HCPCS            |
| G9111       | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)                                                                                                            | Procedure            | HCPCS            |
| G9112       | Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                             | Procedure            | HCPCS            |
| G9113       | Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic Stage IA-B (Grade 1) without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                                   | Procedure            | HCPCS            |
| G9114       | Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic Stage IA-B (Grade 2-3); or Stage IC (all grades); or Stage II; without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                                                         | Procedure            | HCPCS            |
| G9115       | Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic Stage III-IV; without evidence of progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)                                                                                                                                                                  | Procedure            | HCPCS            |
| G9116       | Oncology; disease status; ovarian cancer, limited to epithelial cancer; evidence of disease progression, or recurrence, and/or platinum resistance (for use in a Medicare-approved demonstration project)                                                                                                                                                                           | Procedure            | HCPCS            |
| G9117       | Oncology; disease status; ovarian cancer, limited to epithelial cancer; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)                                                                                                                                                                                        | Procedure            | HCPCS            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                 | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| G9123       | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; chronic phase not in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)          | Procedure            | HCPCS            |
| G9124       | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and /or BCR-ABL positive; accelerated phase not in hematologic cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)      | Procedure            | HCPCS            |
| G9125       | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; blast phase not in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)            | Procedure            | HCPCS            |
| G9126       | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)                            | Procedure            | HCPCS            |
| G9127       | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and /or BCR-ABL positive; extent of disease unknown, under evaluation, not listed (for use in a Medicare-approved demonstration project)                       | Procedure            | HCPCS            |
| G9131       | Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project) | Procedure            | HCPCS            |
| G9132       | Oncology; disease status; prostate cancer, limited to adenocarcinoma; hormone-refractory/androgen-independent (e.g., rising PSA on antiandrogen therapy or postorchiectomy); clinical metastases (for use in a Medicare-approved demonstration project)            | Procedure            | HCPCS            |
| G9133       | Oncology; disease status; prostate cancer, limited to adenocarcinoma; hormone-responsive; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)                                                                            | Procedure            | HCPCS            |
| G9139       | Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; extent of disease unknown, staging in progress, not listed (for use in a Medicare-approved demonstration project)                     | Procedure            | HCPCS            |
| G9704       | AJCC breast cancer Stage I: T1 mic or T1a documented                                                                                                                                                                                                               | Procedure            | HCPCS            |
| G9705       | AJCC breast cancer Stage I: T1b (tumor > 0.5 cm but <= 1 cm in greatest dimension) documented                                                                                                                                                                      | Procedure            | HCPCS            |
| G9711       | Patients with a diagnosis or past history of total colectomy or colorectal cancer                                                                                                                                                                                  | Procedure            | HCPCS            |
| G9826       | Patient transferred to practice after initiation of chemotherapy                                                                                                                                                                                                   | Procedure            | HCPCS            |
| G9829       | Breast adjuvant chemotherapy administered                                                                                                                                                                                                                          | Procedure            | HCPCS            |
| G9831       | AJCC Stage at breast cancer diagnosis = II or III                                                                                                                                                                                                                  | Procedure            | HCPCS            |
| G9832       | AJCC Stage at breast cancer diagnosis = I (Ia or Ib) and T-Stage at breast cancer diagnosis does not equal = T1, T1a, T1b                                                                                                                                          | Procedure            | HCPCS            |
| G9833       | Patient transfer to practice after initiation of chemotherapy                                                                                                                                                                                                      | Procedure            | HCPCS            |
| G9835       | Trastuzumab administered within 12 months of diagnosis                                                                                                                                                                                                             | Procedure            | HCPCS            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                       | Code      |           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                                                                                                                                   | Category  | Code Type |
| G9836 | Reason for not administering trastuzumab documented (e.g., patient declined, patient died, patient transferred, contraindication or other clinical exclusion, neoadjuvant chemotherapy or radiation not complete) | Procedure | HCPCS     |
| G9837 | Trastuzumab not administered within 12 months of diagnosis                                                                                                                                                        | Procedure | HCPCS     |
| J0202 | Injection, alemtuzumab, 1 mg                                                                                                                                                                                      | Procedure | HCPCS     |
| J0207 | Injection, amifostine, 500 mg                                                                                                                                                                                     | Procedure | HCPCS     |
| J0594 | Injection, busulfan, 1 mg                                                                                                                                                                                         | Procedure | HCPCS     |
| J0894 | Injection, decitabine, 1 mg                                                                                                                                                                                       | Procedure | HCPCS     |
| J7527 | Everolimus, oral, 0.25 mg                                                                                                                                                                                         | Procedure | HCPCS     |
| J8501 | Aprepitant, oral, 5 mg                                                                                                                                                                                            | Procedure | HCPCS     |
| J8510 | Busulfan, oral, 2 mg                                                                                                                                                                                              | Procedure | HCPCS     |
| J8515 | Cabergoline, oral, 0.25 mg                                                                                                                                                                                        | Procedure | HCPCS     |
| J8520 | Capecitabine, oral, 150 mg                                                                                                                                                                                        | Procedure | HCPCS     |
| J8521 | Capecitabine, oral, 500 mg                                                                                                                                                                                        | Procedure | HCPCS     |
| J8530 | Cyclophosphamide, oral, 25 mg                                                                                                                                                                                     | Procedure | HCPCS     |
| J8540 | Dexamethasone, oral, 0.25 mg                                                                                                                                                                                      | Procedure | HCPCS     |
| J8560 | Etoposide, oral, 50 mg                                                                                                                                                                                            | Procedure | HCPCS     |
| J8561 | Everolimus, oral, 0.25 mg                                                                                                                                                                                         | Procedure | HCPCS     |
| J8562 | Fludarabine phosphate, oral, 10 mg                                                                                                                                                                                | Procedure | HCPCS     |
| J8565 | Gefitinib, oral, 250 mg                                                                                                                                                                                           | Procedure | HCPCS     |
| J8597 | Antiemetic drug, oral, not otherwise specified                                                                                                                                                                    | Procedure | HCPCS     |
| J8600 | Melphalan, oral, 2 mg                                                                                                                                                                                             | Procedure | HCPCS     |
| J8610 | Methotrexate, oral, 2.5 mg                                                                                                                                                                                        | Procedure | HCPCS     |
| J8650 | Nabilone, oral, 1 mg                                                                                                                                                                                              | Procedure | HCPCS     |
| J8655 | Netupitant 300 mg and palonosetron 0.5 mg, oral                                                                                                                                                                   | Procedure | HCPCS     |
| J8670 | Rolapitant, oral, 1 mg                                                                                                                                                                                            | Procedure | HCPCS     |
| J8700 | Temozolomide, oral, 5 mg                                                                                                                                                                                          | Procedure | HCPCS     |
| J8705 | Topotecan, oral, 0.25 mg                                                                                                                                                                                          | Procedure | HCPCS     |
| J8999 | Prescription drug, oral, chemotherapeutic, NOS                                                                                                                                                                    | Procedure | HCPCS     |
| J9000 | Injection, doxorubicin HCl, 10 mg                                                                                                                                                                                 | Procedure | HCPCS     |
| J9001 | Injection, doxorubicin HCl, all lipid formulations, 10 mg                                                                                                                                                         | Procedure | HCPCS     |
| J9002 | Injection, doxorubicin hydrochloride, liposomal, Doxil, 10 mg                                                                                                                                                     | Procedure | HCPCS     |
| J9010 | Injection, alemtuzumab, 10 mg                                                                                                                                                                                     | Procedure | HCPCS     |
| J9015 | Injection, aldesleukin, per single use vial                                                                                                                                                                       | Procedure | HCPCS     |
| J9017 | Injection, arsenic trioxide, 1 mg                                                                                                                                                                                 | Procedure | HCPCS     |
| J9019 | Injection, asparaginase (Erwinaze), 1,000 IU                                                                                                                                                                      | Procedure | HCPCS     |
| J9020 | Injection, asparaginase, not otherwise specified, 10,000 units                                                                                                                                                    | Procedure | HCPCS     |
| J9021 | Injection, asparaginase, recombinant, (Rylaze), 0.1 mg                                                                                                                                                            | Procedure | HCPCS     |
| J9022 | Injection, atezolizumab, 10 mg                                                                                                                                                                                    | Procedure | HCPCS     |
| J9023 | Injection, avelumab, 10 mg                                                                                                                                                                                        | Procedure | HCPCS     |
| J9025 | Injection, azacitidine, 1 mg                                                                                                                                                                                      | Procedure | HCPCS     |
| J9027 | Injection, clofarabine, 1 mg                                                                                                                                                                                      | Procedure | HCPCS     |
| J9030 | BCG live intravesical instillation, 1 mg                                                                                                                                                                          | Procedure | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                             | Code      |           |
|-------|-----------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                         | Category  | Code Type |
| J9032 | Injection, belinostat, 10 mg                                                            | Procedure | HCPCS     |
| J9033 | Injection, bendamustine HCl (Treanda), 1 mg                                             | Procedure | HCPCS     |
| J9034 | Injection, bendamustine HCl (Bendeka), 1 mg                                             | Procedure | HCPCS     |
| J9035 | Injection, bevacizumab, 10 mg                                                           | Procedure | HCPCS     |
| J9036 | Injection, bendamustine HCl, (Belrapzo/bendamustine), 1 mg                              | Procedure | HCPCS     |
| J9037 | Injection, belantamab mafodotin-blmf, 0.5 mg                                            | Procedure | HCPCS     |
| J9039 | Injection, blinatumomab, 1 mcg                                                          | Procedure | HCPCS     |
| J9040 | Injection, bleomycin sulfate, 15 units                                                  | Procedure | HCPCS     |
| J9041 | Injection, bortezomib, 0.1 mg                                                           | Procedure | HCPCS     |
| J9042 | Injection, brentuximab vedotin, 1 mg                                                    | Procedure | HCPCS     |
| J9043 | Injection, cabazitaxel, 1 mg                                                            | Procedure | HCPCS     |
| J9045 | Injection, carboplatin, 50 mg                                                           | Procedure | HCPCS     |
| J9046 | Injection, bortezomib (Dr. Reddy's), not therapeutically equivalent to J9041, 0.1 mg    | Procedure | HCPCS     |
| J9047 | Injection, carfilzomib, 1 mg                                                            | Procedure | HCPCS     |
| J9048 | Injection, bortezomib (Fresenius Kabi), not therapeutically equivalent to J9041, 0.1 mg | Procedure | HCPCS     |
| J9049 | Injection, bortezomib (Hospira), not therapeutically equivalent to J9041, 0.1 mg        | Procedure | HCPCS     |
| J9050 | Injection, carmustine, 100 mg                                                           | Procedure | HCPCS     |
| J9055 | Injection, cetuximab, 10 mg                                                             | Procedure | HCPCS     |
| J9057 | Injection, copanlisib, 1 mg                                                             | Procedure | HCPCS     |
| J9060 | Injection, cisplatin, powder or solution, 10 mg                                         | Procedure | HCPCS     |
| J9061 | Injection, amivantamab-vmjw, 2 mg                                                       | Procedure | HCPCS     |
| J9062 | Cisplatin, 50 mg                                                                        | Procedure | HCPCS     |
| J9065 | Injection, cladribine, per 1 mg                                                         | Procedure | HCPCS     |
| J9070 | Cyclophosphamide, 100 mg                                                                | Procedure | HCPCS     |
| J9071 | Injection, cyclophosphamide, (AuroMedics), 5 mg                                         | Procedure | HCPCS     |
| J9080 | Cyclophosphamide, 200 mg                                                                | Procedure | HCPCS     |
| J9090 | Cyclophosphamide, 500 mg                                                                | Procedure | HCPCS     |
| J9091 | Cyclophosphamide, 1 g                                                                   | Procedure | HCPCS     |
| J9092 | Cyclophosphamide, 2 g                                                                   | Procedure | HCPCS     |
| J9093 | Cyclophosphamide, lyophilized, 100 mg                                                   | Procedure | HCPCS     |
| J9094 | Cyclophosphamide, lyophilized, 200 mg                                                   | Procedure | HCPCS     |
| J9095 | Cyclophosphamide, lyophilized, 500 mg                                                   | Procedure | HCPCS     |
| J9096 | Cyclophosphamide, lyophilized, 1 g                                                      | Procedure | HCPCS     |
| J9097 | Cyclophosphamide, lyophilized, 2 g                                                      | Procedure | HCPCS     |
| J9098 | Injection, cytarabine liposome, 10 mg                                                   | Procedure | HCPCS     |
| J9100 | Injection, cytarabine, 100 mg                                                           | Procedure | HCPCS     |
| J9110 | Injection, cytarabine, 500 mg                                                           | Procedure | HCPCS     |
| J9118 | Injection, calaspargase pegol-mknl, 10 units                                            | Procedure | HCPCS     |
| J9119 | Injection, cemiplimab-rwlc, 1 mg                                                        | Procedure | HCPCS     |
| J9120 | Injection, dactinomycin, 0.5 mg                                                         | Procedure | HCPCS     |
| J9130 | Dacarbazine, 100 mg                                                                     | Procedure | HCPCS     |
| J9140 | Dacarbazine, 200 mg                                                                     | Procedure | HCPCS     |
| J9144 | Injection, daratumumab, 10 mg and hyaluronidase-fihj                                    | Procedure | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                           | Code      |           |
|-------|-----------------------------------------------------------------------|-----------|-----------|
|       |                                                                       | Category  | Code Type |
| J9145 | Injection, daratumumab, 10 mg                                         | Procedure | HCPCS     |
| J9150 | Injection, daunorubicin, 10 mg                                        | Procedure | HCPCS     |
| J9151 | Injection, daunorubicin citrate, liposomal formulation, 10 mg         | Procedure | HCPCS     |
| J9153 | Injection, liposomal, 1 mg daunorubicin and 2.27 mg cytarabine        | Procedure | HCPCS     |
| J9155 | Injection, degarelix, 1 mg                                            | Procedure | HCPCS     |
| J9160 | Injection, denileukin diftitox, 300 mcg                               | Procedure | HCPCS     |
| J9165 | Injection, diethylstilbestrol diphosphate, 250 mg                     | Procedure | HCPCS     |
| J9170 | Injection, docetaxel, 20 mg                                           | Procedure | HCPCS     |
| J9171 | Injection, docetaxel, 1 mg                                            | Procedure | HCPCS     |
| J9173 | Injection, durvalumab, 10 mg                                          | Procedure | HCPCS     |
| J9175 | Injection, Elliotts' B solution, 1 ml                                 | Procedure | HCPCS     |
| J9176 | Injection, elotuzumab, 1 mg                                           | Procedure | HCPCS     |
| J9177 | Injection, enfortumab vedotin-ejfv, 0.25 mg                           | Procedure | HCPCS     |
| J9178 | Injection, epirubicin HCl, 2 mg                                       | Procedure | HCPCS     |
| J9179 | Injection, eribulin mesylate, 0.1 mg                                  | Procedure | HCPCS     |
| J9180 | Epirubicin HCl, 50 mg                                                 | Procedure | HCPCS     |
| J9181 | Injection, etoposide, 10 mg                                           | Procedure | HCPCS     |
| J9182 | Etoposide, 100 mg                                                     | Procedure | HCPCS     |
| J9185 | Injection, fludarabine phosphate, 50 mg                               | Procedure | HCPCS     |
| J9190 | Injection, fluorouracil, 500 mg                                       | Procedure | HCPCS     |
| J9198 | Injection, gemcitabine HCl, (Infugem), 100 mg                         | Procedure | HCPCS     |
| J9200 | Injection, floxuridine, 500 mg                                        | Procedure | HCPCS     |
| J9201 | Injection, gemcitabine HCl, not otherwise specified, 200 mg           | Procedure | HCPCS     |
| J9202 | Goserelin acetate implant, per 3.6 mg                                 | Procedure | HCPCS     |
| J9203 | Injection, gemtuzumab ozogamicin, 0.1 mg                              | Procedure | HCPCS     |
| J9204 | Injection, mogamulizumab-kpkc, 1 mg                                   | Procedure | HCPCS     |
| J9205 | Injection, irinotecan liposome, 1 mg                                  | Procedure | HCPCS     |
| J9206 | Injection, irinotecan, 20 mg                                          | Procedure | HCPCS     |
| J9207 | Injection, ixabepilone, 1 mg                                          | Procedure | HCPCS     |
| J9208 | Injection, ifosfamide, 1 g                                            | Procedure | HCPCS     |
| J9209 | Injection, mesna, 200 mg                                              | Procedure | HCPCS     |
| J9210 | Injection, emapalumab-lzsg, 1 mg                                      | Procedure | HCPCS     |
| J9211 | Injection, idarubicin HCl, 5 mg                                       | Procedure | HCPCS     |
| J9212 | Injection, interferon alfacon-1, recombinant, 1 mcg                   | Procedure | HCPCS     |
| J9213 | Injection, interferon, alfa-2a, recombinant, 3 million units          | Procedure | HCPCS     |
| J9214 | Injection, interferon, alfa-2b, recombinant, 1 million units          | Procedure | HCPCS     |
| J9215 | Injection, interferon, alfa-N3, (human leukocyte derived), 250,000 IU | Procedure | HCPCS     |
| J9216 | Injection, interferon, gamma 1-b, 3 million units                     | Procedure | HCPCS     |
| J9217 | Leuprolide acetate (for depot suspension), 7.5 mg                     | Procedure | HCPCS     |
| J9218 | Leuprolide acetate, per 1 mg                                          | Procedure | HCPCS     |
| J9219 | Leuprolide acetate implant, 65 mg                                     | Procedure | HCPCS     |
| J9223 | Injection, lurbinectedin, 0.1 mg                                      | Procedure | HCPCS     |
| J9225 | Histrelin implant (Vantas), 50 mg                                     | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                               | Code      |           |
|-------|-----------------------------------------------------------|-----------|-----------|
|       |                                                           | Category  | Code Type |
| J9226 | Histrelin implant (Supprelin LA), 50 mg                   | Procedure | HCPCS     |
| J9227 | Injection, isatuximab-irfc, 10 mg                         | Procedure | HCPCS     |
| J9228 | Injection, ipilimumab, 1 mg                               | Procedure | HCPCS     |
| J9229 | Injection, inotuzumab ozogamicin, 0.1 mg                  | Procedure | HCPCS     |
| J9230 | Injection, mechlorethamine HCl, (nitrogen mustard), 10 mg | Procedure | HCPCS     |
| J9245 | Injection, melphalan HCl, not otherwise specified, 50 mg  | Procedure | HCPCS     |
| J9246 | Injection, melphalan (Evomela), 1 mg                      | Procedure | HCPCS     |
| J9247 | Injection, melphalan flufenamide, 1 mg                    | Procedure | HCPCS     |
| J9250 | Methotrexate sodium, 5 mg                                 | Procedure | HCPCS     |
| J9260 | Methotrexate sodium, 50 mg                                | Procedure | HCPCS     |
| J9261 | Injection, nelarabine, 50 mg                              | Procedure | HCPCS     |
| J9262 | Injection, omacetaxine mepesuccinate, 0.01 mg             | Procedure | HCPCS     |
| J9263 | Injection, oxaliplatin, 0.5 mg                            | Procedure | HCPCS     |
| J9264 | Injection, paclitaxel protein-bound particles, 1 mg       | Procedure | HCPCS     |
| J9265 | Injection, paclitaxel, 30 mg                              | Procedure | HCPCS     |
| J9266 | Injection, pegaspargase, per single dose vial             | Procedure | HCPCS     |
| J9267 | Injection, paclitaxel, 1 mg                               | Procedure | HCPCS     |
| J9268 | Injection, pentostatin, 10 mg                             | Procedure | HCPCS     |
| J9269 | Injection, tagraxofusp-erzs, 10 mcg                       | Procedure | HCPCS     |
| J9270 | Injection, plicamycin, 2.5 mg                             | Procedure | HCPCS     |
| J9271 | Injection, pembrolizumab, 1 mg                            | Procedure | HCPCS     |
| J9272 | Injection, dostarlimab-gxly, 10 mg                        | Procedure | HCPCS     |
| J9273 | Injection, tisotumab vedotin-tftv, 1 mg                   | Procedure | HCPCS     |
| J9274 | Injection, tebentafusp-tebn, 1 mcg                        | Procedure | HCPCS     |
| J9280 | Injection, mitomycin, 5 mg                                | Procedure | HCPCS     |
| J9281 | Mitomycin pyelocalyceal instillation, 1 mg                | Procedure | HCPCS     |
| J9285 | Injection, olaratumab, 10 mg                              | Procedure | HCPCS     |
| J9290 | Mitomycin, 20 mg                                          | Procedure | HCPCS     |
| J9291 | Mitomycin, 40 mg                                          | Procedure | HCPCS     |
| J9293 | Injection, mitoxantrone HCl, per 5 mg                     | Procedure | HCPCS     |
| J9295 | Injection, necitumumab, 1 mg                              | Procedure | HCPCS     |
| J9298 | Injection, nivolumab and relatlimab-rmbw, 3 mg/1 mg       | Procedure | HCPCS     |
| J9299 | Injection, nivolumab, 1 mg                                | Procedure | HCPCS     |
| J9300 | Injection, gemtuzumab ozogamicin, 5 mg                    | Procedure | HCPCS     |
| J9301 | Injection, obinutuzumab, 10 mg                            | Procedure | HCPCS     |
| J9302 | Injection, ofatumumab, 10 mg                              | Procedure | HCPCS     |
| J9303 | Injection, panitumumab, 10 mg                             | Procedure | HCPCS     |
| J9304 | Injection, pemetrexed (Pemfexy), 10 mg                    | Procedure | HCPCS     |
| J9305 | Injection, pemetrexed, NOS, 10 mg                         | Procedure | HCPCS     |
| J9306 | Injection, pertuzumab, 1 mg                               | Procedure | HCPCS     |
| J9307 | Injection, pralatrexate, 1 mg                             | Procedure | HCPCS     |
| J9308 | Injection, ramucirumab, 5 mg                              | Procedure | HCPCS     |
| J9309 | Injection, polatuzumab vedotin-piiq, 1 mg                 | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                            | Code      |           |
|-------|----------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                        | Category  | Code Type |
| J9310 | Injection, rituximab, 100 mg                                                           | Procedure | HCPCS     |
| J9311 | Injection, rituximab 10 mg and hyaluronidase                                           | Procedure | HCPCS     |
| J9312 | Injection, rituximab, 10 mg                                                            | Procedure | HCPCS     |
| J9313 | Injection, moxetumomab pasudotox-tdfk, 0.01 mg                                         | Procedure | HCPCS     |
| J9315 | Injection, romidepsin, 1 mg                                                            | Procedure | HCPCS     |
| J9316 | Injection, pertuzumab, trastuzumab, and hyaluronidase-zzxf, per 10 mg                  | Procedure | HCPCS     |
| J9317 | Injection, sacituzumab govitecan-hziy, 2.5 mg                                          | Procedure | HCPCS     |
| J9318 | Injection, romidepsin, nonlyophilized, 0.1 mg                                          | Procedure | HCPCS     |
| J9319 | Injection, romidepsin, lyophilized, 0.1 mg                                             | Procedure | HCPCS     |
| J9320 | Injection, streptozocin, 1 g                                                           | Procedure | HCPCS     |
| J9325 | Injection, talimogene laherparepvec, per 1 million plaque forming units                | Procedure | HCPCS     |
| J9328 | Injection, temozolomide, 1 mg                                                          | Procedure | HCPCS     |
| J9330 | Injection, temsirolimus, 1 mg                                                          | Procedure | HCPCS     |
| J9331 | Injection, sirolimus protein-bound particles, 1 mg                                     | Procedure | HCPCS     |
| J9332 | Injection, efgartigimod alfa-fcab, 2 mg                                                | Procedure | HCPCS     |
| J9340 | Injection, thiotepa, 15 mg                                                             | Procedure | HCPCS     |
| J9348 | Injection, naxitamab-gqgk, 1 mg                                                        | Procedure | HCPCS     |
| J9349 | Injection, tafasitamab-cxix, 2 mg                                                      | Procedure | HCPCS     |
| J9350 | Injection, mosunetuzumab-axgb, 1 mg                                                    | Procedure | HCPCS     |
| J9351 | Injection, topotecan, 0.1 mg                                                           | Procedure | HCPCS     |
| J9352 | Injection, trabectedin, 0.1 mg                                                         | Procedure | HCPCS     |
| J9353 | Injection, margetuximab-cmkb, 5 mg                                                     | Procedure | HCPCS     |
| J9354 | Injection, ado-trastuzumab emtansine, 1 mg                                             | Procedure | HCPCS     |
| J9355 | Injection, trastuzumab, excludes biosimilar, 10 mg                                     | Procedure | HCPCS     |
| J9356 | Injection, trastuzumab, 10 mg and hyaluronidase-oyks                                   | Procedure | HCPCS     |
| J9357 | Injection, valrubicin, intravesical, 200 mg                                            | Procedure | HCPCS     |
| J9358 | Injection, fam-trastuzumab deruxtecan-nxki, 1 mg                                       | Procedure | HCPCS     |
| J9359 | Injection, loncastuximab tesirine-lpyl, 0.075 mg                                       | Procedure | HCPCS     |
| J9360 | Injection, vinblastine sulfate, 1 mg                                                   | Procedure | HCPCS     |
| J9370 | Vincristine sulfate, 1 mg                                                              | Procedure | HCPCS     |
| J9371 | Injection, vincristine sulfate liposome, 1 mg                                          | Procedure | HCPCS     |
| J9375 | Vincristine sulfate, 2 mg                                                              | Procedure | HCPCS     |
| J9380 | Injection, teclistamab-cqyv, 0.5 mg                                                    | Procedure | HCPCS     |
| J9390 | Injection, vinorelbine tartrate, 10 mg                                                 | Procedure | HCPCS     |
| J9393 | Injection, fulvestrant (Teva) not therapeutically equivalent to J9395, 25 mg           | Procedure | HCPCS     |
| J9394 | Injection, fulvestrant (Fresenius Kabi) not therapeutically equivalent to J9395, 25 mg | Procedure | HCPCS     |
| J9395 | Injection, fulvestrant, 25 mg                                                          | Procedure | HCPCS     |
| J9400 | Injection, ziv-aflibercept, 1 mg                                                       | Procedure | HCPCS     |
| J9600 | Injection, porfimer sodium, 75 mg                                                      | Procedure | HCPCS     |
| J9999 | Not otherwise classified, antineoplastic drugs                                         | Procedure | HCPCS     |
| M0001 | Advancing Cancer Care MIPS Value Pathways                                              | Procedure | HCPCS     |
| M1037 | Patients with a diagnosis of lumbar spine region cancer at the time of the procedure   | Procedure | HCPCS     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| M1041       | Patient had cancer, acute fracture or infection related to the lumbar spine or patient had neuromuscular, idiopathic or congenital lumbar scoliosis | Procedure            | HCPCS            |
| M1051       | Patient had cancer, acute fracture or infection related to the lumbar spine or patient had neuromuscular, idiopathic or congenital lumbar scoliosis | Procedure            | HCPCS            |
| M1072       | Radiation therapy for anal cancer under the Radiation Oncology model, 90-day episode, professional component                                        | Procedure            | HCPCS            |
| M1073       | Radiation therapy for anal cancer under the Radiation Oncology model, 90-day episode, technical component                                           | Procedure            | HCPCS            |
| M1074       | Radiation therapy for bladder cancer under the Radiation Oncology model, 90-day episode, professional component                                     | Procedure            | HCPCS            |
| M1075       | Radiation therapy for bladder cancer under the Radiation Oncology model, 90-day episode, technical component                                        | Procedure            | HCPCS            |
| M1080       | Radiation therapy for breast cancer under the Radiation Oncology model, 90-day episode, professional component                                      | Procedure            | HCPCS            |
| M1081       | Radiation therapy for breast cancer under the Radiation Oncology model, 90-day episode, technical component                                         | Procedure            | HCPCS            |
| M1082       | Radiation therapy for cervical cancer under the Radiation Oncology model, 90-day episode, professional component                                    | Procedure            | HCPCS            |
| M1083       | Radiation therapy for cervical cancer under the Radiation Oncology model, 90-day episode, technical component                                       | Procedure            | HCPCS            |
| M1084       | Radiation therapy for CNS tumors under the Radiation Oncology model, 90-day episode, professional component                                         | Procedure            | HCPCS            |
| M1085       | Radiation therapy for CNS tumors under the Radiation Oncology model, 90-day episode, technical component                                            | Procedure            | HCPCS            |
| M1086       | Radiation therapy for colorectal cancer under the Radiation Oncology model, 90-day episode, professional component                                  | Procedure            | HCPCS            |
| M1087       | Radiation therapy for colorectal cancer under the Radiation Oncology model, 90-day episode, technical component                                     | Procedure            | HCPCS            |
| M1088       | Radiation therapy for head and neck cancer under the Radiation Oncology model, 90-day episode, professional component                               | Procedure            | HCPCS            |
| M1089       | Radiation therapy for head and neck cancer under the Radiation Oncology model, 90-day episode, technical component                                  | Procedure            | HCPCS            |
| M1094       | Radiation therapy for lung cancer under the Radiation Oncology model, 90-day episode, professional component                                        | Procedure            | HCPCS            |
| M1095       | Radiation therapy for lung cancer under the Radiation Oncology model, 90-day episode, technical component                                           | Procedure            | HCPCS            |
| M1098       | Radiation therapy for pancreatic cancer under the Radiation Oncology model, 90-day episode, professional component                                  | Procedure            | HCPCS            |
| M1099       | Radiation therapy for pancreatic cancer under the Radiation Oncology model, 90-day episode, technical component                                     | Procedure            | HCPCS            |
| M1100       | Radiation therapy for prostate cancer under the Radiation Oncology model, 90-day episode, professional component                                    | Procedure            | HCPCS            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Code Category</b> | <b>Code Type</b> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| M1101       | Radiation therapy for prostate cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                          | Procedure            | HCPCS            |
| M1102       | Radiation therapy for upper GI cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                       | Procedure            | HCPCS            |
| M1103       | Radiation therapy for upper GI cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                          | Procedure            | HCPCS            |
| M1104       | Radiation therapy for uterine cancer under the Radiation Oncology model, 90-day episode, professional component                                                                                                                                                                                                                                                                                                                                        | Procedure            | HCPCS            |
| M1105       | Radiation therapy for uterine cancer under the Radiation Oncology model, 90-day episode, technical component                                                                                                                                                                                                                                                                                                                                           | Procedure            | HCPCS            |
| M1156       | Patient received active chemotherapy any time during the measurement period                                                                                                                                                                                                                                                                                                                                                                            | Procedure            | HCPCS            |
| M1194       | Documentation of medical reason(s) surgical pathology reports did not contain impression or conclusion of or recommendation for testing of MMR by immunohistochemistry, MSI by DNA-based testing status, or both tests were not included (e.g., patient will not be treated with checkpoint inhibitor therapy, no residual carcinoma is present in the sample [tissue exhausted or status post neoadjuvant treatment], insufficient tumor for testing) | Procedure            | HCPCS            |
| Q0083       | Chemotherapy administration by other than infusion technique only (e.g., subcutaneous, intramuscular, push), per visit                                                                                                                                                                                                                                                                                                                                 | Procedure            | HCPCS            |
| Q0084       | Chemotherapy administration by infusion technique only, per visit                                                                                                                                                                                                                                                                                                                                                                                      | Procedure            | HCPCS            |
| Q0085       | Chemotherapy administration by both infusion technique and other technique(s) (e.g. subcutaneous, intramuscular, push), per visit                                                                                                                                                                                                                                                                                                                      | Procedure            | HCPCS            |
| Q0161       | Chlorpromazine HCl, 5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                                                                                                                                                                                                                                  | Procedure            | HCPCS            |
| Q0162       | Ondansetron 1 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                                                                                                                                                                                                                                          | Procedure            | HCPCS            |
| Q0163       | Diphenhydramine HCl, 50 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at time of chemotherapy treatment not to exceed a 48-hour dosage regimen                                                                                                                                                                                                                                     | Procedure            | HCPCS            |
| Q0164       | Prochlorperazine maleate, 5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                                                                                                                                                                                                                            | Procedure            | HCPCS            |
| Q0165       | Prochlorperazine maleate, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                                                                                                                                                                                                                           | Procedure            | HCPCS            |
| Q0166       | Granisetron HCl, 1 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen                                                                                                                                                                                                                                     | Procedure            | HCPCS            |
| Q0167       | Dronabinol, 2.5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                                                                                                                                                                                                                                        | Procedure            | HCPCS            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                           | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| Q0168       | Dronabinol, 5 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen                | Procedure            | HCPCS            |
| Q0169       | Promethazine HCl, 12.5 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure            | HCPCS            |
| Q0170       | Promethazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen         | Procedure            | HCPCS            |
| Q0171       | Chlorpromazine HCl, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure            | HCPCS            |
| Q0172       | Chlorpromazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen       | Procedure            | HCPCS            |
| Q0173       | Trimethobenzamide HCl, 250 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen   | Procedure            | HCPCS            |
| Q0174       | Thiethylperazine maleate, 10 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen | Procedure            | HCPCS            |
| Q0175       | Perphenazine, 4 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen              | Procedure            | HCPCS            |
| Q0176       | Perphenazine, 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen              | Procedure            | HCPCS            |
| Q0177       | Hydroxyzine pamoate, 25 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen      | Procedure            | HCPCS            |
| Q0178       | Hydroxyzine pamoate, 50 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen      | Procedure            | HCPCS            |
| Q0179       | Ondansetron HCl 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen            | Procedure            | HCPCS            |
| Q0180       | Dolasetron mesylate, 100 mg, oral, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen     | Procedure            | HCPCS            |
| Q0181       | Unspecified oral dosage form, FDA-approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen          | Procedure            | HCPCS            |
| Q2025       | Fludarabine phosphate, oral, 1 mg                                                                                                                                                                                            | Procedure            | HCPCS            |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                      | Code Category | Code Type |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| Q2043 | Sipuleucel-T, minimum of 50 million autologous CD54+ cells activated with PAP-GM-CSF, including leukapheresis and all other preparatory procedures, per infusion | Procedure     | HCPCS     |
| Q2048 | Injection, doxorubicin hydrochloride, liposomal, DOXIL, 10 mg                                                                                                    | Procedure     | HCPCS     |
| Q2049 | Injection, doxorubicin HCl, liposomal, imported Lipodox, 10 mg                                                                                                   | Procedure     | HCPCS     |
| Q2050 | Injection, doxorubicin HCl, liposomal, not otherwise specified, 10 mg                                                                                            | Procedure     | HCPCS     |
| Q5112 | Injection, trastuzumab-dttb, biosimilar, (Ontruzant), 10 mg                                                                                                      | Procedure     | HCPCS     |
| Q5113 | Injection, trastuzumab-pkrb, biosimilar, (Herzuma), 10 mg                                                                                                        | Procedure     | HCPCS     |
| Q5114 | Injection, Trastuzumab-dkst, biosimilar, (Ogivri), 10 mg                                                                                                         | Procedure     | HCPCS     |
| Q5115 | Injection, rituximab-abbs, biosimilar, (Truxima), 10 mg                                                                                                          | Procedure     | HCPCS     |
| Q5116 | Injection, trastuzumab-qyyp, biosimilar, (Trazimera), 10 mg                                                                                                      | Procedure     | HCPCS     |
| Q5117 | Injection, trastuzumab-anns, biosimilar, (Kanjinti), 10 mg                                                                                                       | Procedure     | HCPCS     |
| Q9979 | Injection, Alemtuzumab, 1 mg                                                                                                                                     | Procedure     | HCPCS     |
| S0087 | Injection, alemtuzumab, 30 mg                                                                                                                                    | Procedure     | HCPCS     |
| S0088 | Imatinib, 100 mg                                                                                                                                                 | Procedure     | HCPCS     |
| S0108 | Mercaptopurine, oral, 50 mg                                                                                                                                      | Procedure     | HCPCS     |
| S0115 | Bortezomib, 3.5 mg                                                                                                                                               | Procedure     | HCPCS     |
| S0116 | Bevacizumab, 100 mg                                                                                                                                              | Procedure     | HCPCS     |
| S0168 | Injection, azacitidine, 100 mg                                                                                                                                   | Procedure     | HCPCS     |
| S0172 | Chlorambucil, oral, 2 mg                                                                                                                                         | Procedure     | HCPCS     |
| S0176 | Hydroxyurea, oral, 500 mg                                                                                                                                        | Procedure     | HCPCS     |
| S0178 | Lomustine, oral, 10 mg                                                                                                                                           | Procedure     | HCPCS     |
| S0182 | Procarbazine HCl, oral, 50 mg                                                                                                                                    | Procedure     | HCPCS     |
| S0353 | Treatment planning and care coordination management for cancer initial treatment                                                                                 | Procedure     | HCPCS     |
| S0354 | Treatment planning and care coordination management for cancer established patient with a change of regimen                                                      | Procedure     | HCPCS     |
| S2090 | Ablation, open, one or more renal tumor(s); cryosurgical                                                                                                         | Procedure     | HCPCS     |
| S2091 | Ablation, percutaneous, one or more renal tumor(s); cryosurgical                                                                                                 | Procedure     | HCPCS     |
| S2095 | Transcatheter occlusion or embolization for tumor destruction, percutaneous, any method, using yttrium-90 microspheres                                           | Procedure     | HCPCS     |
| S2107 | Adoptive immunotherapy i.e. development of specific antitumor reactivity (e.g., tumor-infiltrating lymphocyte therapy) per course of treatment                   | Procedure     | HCPCS     |
| S2210 | Cryosurgical ablation (in situ destruction) of tumorous tissue, one or more lesions; liver                                                                       | Procedure     | HCPCS     |
| S3700 | Bladder tumor-associated antigen test                                                                                                                            | Procedure     | HCPCS     |
| S3711 | Circulating tumor cell test                                                                                                                                      | Procedure     | HCPCS     |
| S3721 | Prostate cancer antigen 3 (PCA3) testing                                                                                                                         | Procedure     | HCPCS     |
| S3820 | Complete BRCA1 and BRCA2 gene sequence analysis for susceptibility to breast and ovarian cancer                                                                  | Procedure     | HCPCS     |
| S3822 | Single mutation analysis (in individual with a known BRCA1 or BRCA2 mutation in the family) for susceptibility to breast and ovarian cancer                      | Procedure     | HCPCS     |
| S3823 | Three-mutation BRCA1 and BRCA2 analysis for susceptibility to breast and ovarian cancer in Ashkenazi individuals                                                 | Procedure     | HCPCS     |
| S3830 | Complete MLH1 and MSH2 gene sequence analysis for hereditary nonpolyposis colorectal cancer (HNPCC) genetic testing                                              | Procedure     | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                   | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| S3831       | Single-mutation analysis (in individual with a known MLH1 and MSH2 mutation in the family) for hereditary nonpolyposis colorectal cancer (HNPCC) genetic testing                                                                                                     | Procedure            | HCPCS            |
| S3854       | Gene expression profiling panel for use in the management of breast cancer treatment                                                                                                                                                                                 | Procedure            | HCPCS            |
| S5019       | Chemotherapy administration supplies (with pump), per diem                                                                                                                                                                                                           | Procedure            | HCPCS            |
| S5020       | Chemotherapy administration supplies (without pump), per diem                                                                                                                                                                                                        | Procedure            | HCPCS            |
| S9329       | Home infusion therapy, chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem (do not use this code with S9330 or S9331)  | Procedure            | HCPCS            |
| S9330       | Home infusion therapy, continuous (24 hours or more) chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem               | Procedure            | HCPCS            |
| S9331       | Home infusion therapy, intermittent (less than 24 hours) chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem           | Procedure            | HCPCS            |
| S9359       | Home infusion therapy, antitumor necrosis factor intravenous therapy; (e.g., Infliximab); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem | Procedure            | HCPCS            |
| S9425       | Nursing services and all necessary supplies and additives for home iv chemotherapy (via iv push, gravity drip, stationary pump, ambulatory belt pump), per diem (hydration solution and drugs not included)                                                          | Procedure            | HCPCS            |
| XW03351     | Introduction of Blinatumomab Antineoplastic Immunotherapy into Peripheral Vein, Percutaneous Approach, New Technology Group 1                                                                                                                                        | Procedure            | ICD-10-PCS       |
| XW033B3     | Introduction of Cytarabine and Daunorubicin Liposome Antineoplastic into Peripheral Vein, Percutaneous Approach, New Technology Group 3                                                                                                                              | Procedure            | ICD-10-PCS       |
| XW033C3     | Introduction of Engineered Autologous Chimeric Antigen Receptor T-cell Immunotherapy into Peripheral Vein, Percutaneous Approach, New Technology Group 3                                                                                                             | Procedure            | ICD-10-PCS       |
| XW033Q5     | Introduction of Tagraxofusp-erzs Antineoplastic into Peripheral Vein, Percutaneous Approach, New Technology Group 5                                                                                                                                                  | Procedure            | ICD-10-PCS       |
| XW033S5     | Introduction of Iobenguane I-131 Antineoplastic into Peripheral Vein, Percutaneous Approach, New Technology Group 5                                                                                                                                                  | Procedure            | ICD-10-PCS       |
| XW04351     | Introduction of Blinatumomab Antineoplastic Immunotherapy into Central Vein, Percutaneous Approach, New Technology Group 1                                                                                                                                           | Procedure            | ICD-10-PCS       |
| XW043B3     | Introduction of Cytarabine and Daunorubicin Liposome Antineoplastic into Central Vein, Percutaneous Approach, New Technology Group 3                                                                                                                                 | Procedure            | ICD-10-PCS       |
| XW043C3     | Introduction of Engineered Autologous Chimeric Antigen Receptor T-cell Immunotherapy into Central Vein, Percutaneous Approach, New Technology Group 3                                                                                                                | Procedure            | ICD-10-PCS       |
| XW043Q5     | Introduction of Tagraxofusp-erzs Antineoplastic into Central Vein, Percutaneous Approach, New Technology Group 5                                                                                                                                                     | Procedure            | ICD-10-PCS       |
| XW043S5     | Introduction of Iobenguane I-131 Antineoplastic into Central Vein, Percutaneous Approach, New Technology Group 5                                                                                                                                                     | Procedure            | ICD-10-PCS       |
| XW0DXL5     | Introduction of Erdafitinib Antineoplastic into Mouth and Pharynx, External Approach, New Technology Group 5                                                                                                                                                         | Procedure            | ICD-10-PCS       |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code               | Description                                                                                                         | Code      |            |
|--------------------|---------------------------------------------------------------------------------------------------------------------|-----------|------------|
|                    |                                                                                                                     | Category  | Code Type  |
| XW0DXR5            | Introduction of Venetoclax Antineoplastic into Mouth and Pharynx, External Approach, New Technology Group 5         | Procedure | ICD-10-PCS |
| XW0DXT5            | Introduction of Ruxolitinib into Mouth and Pharynx, External Approach, New Technology Group 5                       | Procedure | ICD-10-PCS |
| XW0DXV5            | Introduction of Gilteritinib Antineoplastic into Mouth and Pharynx, External Approach, New Technology Group 5       | Procedure | ICD-10-PCS |
| <b>Nephropathy</b> |                                                                                                                     |           |            |
| 250.4              | Diabetes with renal manifestations                                                                                  | Diagnosis | ICD-9-CM   |
| 580                | Acute glomerulonephritis                                                                                            | Diagnosis | ICD-9-CM   |
| 580.0              | Acute glomerulonephritis with lesion of proliferative glomerulonephritis                                            | Diagnosis | ICD-9-CM   |
| 580.4              | Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis                                      | Diagnosis | ICD-9-CM   |
| 580.8              | Acute glomerulonephritis with other specified pathological lesion in kidney                                         | Diagnosis | ICD-9-CM   |
| 580.81             | Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere         | Diagnosis | ICD-9-CM   |
| 580.89             | Other acute glomerulonephritis with other specified pathological lesion in kidney                                   | Diagnosis | ICD-9-CM   |
| 580.9              | Acute glomerulonephritis with unspecified pathological lesion in kidney                                             | Diagnosis | ICD-9-CM   |
| 581                | Nephrotic syndrome                                                                                                  | Diagnosis | ICD-9-CM   |
| 581.0              | Nephrotic syndrome with lesion of proliferative glomerulonephritis                                                  | Diagnosis | ICD-9-CM   |
| 581.1              | Nephrotic syndrome with lesion of membranous glomerulonephritis                                                     | Diagnosis | ICD-9-CM   |
| 581.2              | Nephrotic syndrome with lesion of membranoproliferative glomerulonephritis                                          | Diagnosis | ICD-9-CM   |
| 581.3              | Nephrotic syndrome with lesion of minimal change glomerulonephritis                                                 | Diagnosis | ICD-9-CM   |
| 581.8              | Nephrotic syndrome with other specified pathological lesion in kidney                                               | Diagnosis | ICD-9-CM   |
| 581.89             | Other nephrotic syndrome with specified pathological lesion in kidney                                               | Diagnosis | ICD-9-CM   |
| 581.9              | Nephrotic syndrome with unspecified pathological lesion in kidney                                                   | Diagnosis | ICD-9-CM   |
| 582                | Chronic glomerulonephritis                                                                                          | Diagnosis | ICD-9-CM   |
| 582.0              | Chronic glomerulonephritis with lesion of proliferative glomerulonephritis                                          | Diagnosis | ICD-9-CM   |
| 582.1              | Chronic glomerulonephritis with lesion of membranous glomerulonephritis                                             | Diagnosis | ICD-9-CM   |
| 582.2              | Chronic glomerulonephritis with lesion of membranoproliferative glomerulonephritis                                  | Diagnosis | ICD-9-CM   |
| 582.4              | Chronic glomerulonephritis with lesion of rapidly progressive glomerulonephritis                                    | Diagnosis | ICD-9-CM   |
| 582.8              | Chronic glomerulonephritis with other specified pathological lesion in kidney                                       | Diagnosis | ICD-9-CM   |
| 582.81             | Chronic glomerulonephritis with other specified pathological lesion in kidney in diseases classified elsewhere      | Diagnosis | ICD-9-CM   |
| 582.89             | Other chronic glomerulonephritis with specified pathological lesion in kidney                                       | Diagnosis | ICD-9-CM   |
| 582.9              | Chronic glomerulonephritis with unspecified pathological lesion in kidney                                           | Diagnosis | ICD-9-CM   |
| 583                | Nephritis and nephropathy, not specified as acute or chronic                                                        | Diagnosis | ICD-9-CM   |
| 583.0              | Nephritis and nephropathy, not specified as acute or chronic, with lesion of proliferative glomerulonephritis       | Diagnosis | ICD-9-CM   |
| 583.4              | Nephritis and nephropathy, not specified as acute or chronic, with lesion of rapidly progressive glomerulonephritis | Diagnosis | ICD-9-CM   |
| 583.6              | Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal cortical necrosis                | Diagnosis | ICD-9-CM   |
| 583.7              | Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal medullary necrosis               | Diagnosis | ICD-9-CM   |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                                                                      | Code      | Code Type |
|--------|------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|        | Category                                                                                                         |           |           |
| 583.8  | Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney | Diagnosis | ICD-9-CM  |
| 584    | Acute kidney failure                                                                                             | Diagnosis | ICD-9-CM  |
| 584.5  | Acute kidney failure with lesion of tubular necrosis                                                             | Diagnosis | ICD-9-CM  |
| 584.6  | Acute kidney failure with lesion of renal cortical necrosis                                                      | Diagnosis | ICD-9-CM  |
| 584.7  | Acute kidney failure with lesion of medullary [papillary] necrosis                                               | Diagnosis | ICD-9-CM  |
| 584.8  | Acute kidney failure with other specified pathological lesion in kidney                                          | Diagnosis | ICD-9-CM  |
| 584.9  | Acute kidney failure, unspecified                                                                                | Diagnosis | ICD-9-CM  |
| 585    | Chronic kidney disease (CKD)                                                                                     | Diagnosis | ICD-9-CM  |
| 585.1  | Chronic kidney disease, Stage I                                                                                  | Diagnosis | ICD-9-CM  |
| 585.2  | Chronic kidney disease, Stage II (mild)                                                                          | Diagnosis | ICD-9-CM  |
| 585.3  | Chronic kidney disease, Stage III (moderate)                                                                     | Diagnosis | ICD-9-CM  |
| 585.4  | Chronic kidney disease, Stage IV (severe)                                                                        | Diagnosis | ICD-9-CM  |
| 585.5  | Chronic kidney disease, Stage V                                                                                  | Diagnosis | ICD-9-CM  |
| 585.6  | End stage renal disease                                                                                          | Diagnosis | ICD-9-CM  |
| 585.9  | Chronic kidney disease, unspecified                                                                              | Diagnosis | ICD-9-CM  |
| 586    | Unspecified renal failure                                                                                        | Diagnosis | ICD-9-CM  |
| 587    | Unspecified renal sclerosis                                                                                      | Diagnosis | ICD-9-CM  |
| 588    | Disorders resulting from impaired renal function                                                                 | Diagnosis | ICD-9-CM  |
| 588.8  | Other specified disorder resulting from impaired renal function                                                  | Diagnosis | ICD-9-CM  |
| 588.89 | Other specified disorders resulting from impaired renal function                                                 | Diagnosis | ICD-9-CM  |
| 588.9  | Unspecified disorder resulting from impaired renal function                                                      | Diagnosis | ICD-9-CM  |
| E08.22 | Diabetes mellitus due to underlying condition with diabetic chronic kidney disease                               | Diagnosis | ICD-10-CM |
| E08.29 | Diabetes mellitus due to underlying condition with other diabetic kidney complication                            | Diagnosis | ICD-10-CM |
| E09.22 | Drug or chemical induced diabetes mellitus with diabetic chronic kidney disease                                  | Diagnosis | ICD-10-CM |
| E09.29 | Drug or chemical induced diabetes mellitus with other diabetic kidney complication                               | Diagnosis | ICD-10-CM |
| E10.22 | Type 1 diabetes mellitus with diabetic chronic kidney disease                                                    | Diagnosis | ICD-10-CM |
| E10.29 | Type 1 diabetes mellitus with other diabetic kidney complication                                                 | Diagnosis | ICD-10-CM |
| E11.22 | Type 2 diabetes mellitus with diabetic chronic kidney disease                                                    | Diagnosis | ICD-10-CM |
| E11.29 | Type 2 diabetes mellitus with other diabetic kidney complication                                                 | Diagnosis | ICD-10-CM |
| E13.22 | Other specified diabetes mellitus with diabetic chronic kidney disease                                           | Diagnosis | ICD-10-CM |
| E13.29 | Other specified diabetes mellitus with other diabetic kidney complication                                        | Diagnosis | ICD-10-CM |
| N00.0  | Acute nephritic syndrome with minor glomerular abnormality                                                       | Diagnosis | ICD-10-CM |
| N00.1  | Acute nephritic syndrome with focal and segmental glomerular lesions                                             | Diagnosis | ICD-10-CM |
| N00.2  | Acute nephritic syndrome with diffuse membranous glomerulonephritis                                              | Diagnosis | ICD-10-CM |
| N00.3  | Acute nephritic syndrome with diffuse mesangial proliferative glomerulonephritis                                 | Diagnosis | ICD-10-CM |
| N00.4  | Acute nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis                             | Diagnosis | ICD-10-CM |
| N00.5  | Acute nephritic syndrome with diffuse mesangiocapillary glomerulonephritis                                       | Diagnosis | ICD-10-CM |
| N00.6  | Acute nephritic syndrome with dense deposit disease                                                              | Diagnosis | ICD-10-CM |
| N00.7  | Acute nephritic syndrome with diffuse crescentic glomerulonephritis                                              | Diagnosis | ICD-10-CM |
| N00.8  | Acute nephritic syndrome with other morphologic changes                                                          | Diagnosis | ICD-10-CM |
| N00.9  | Acute nephritic syndrome with unspecified morphologic changes                                                    | Diagnosis | ICD-10-CM |
| N01.0  | Rapidly progressive nephritic syndrome with minor glomerular abnormality                                         | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                        | Code      |           |
|-------|----------------------------------------------------------------------------------------------------|-----------|-----------|
|       |                                                                                                    | Category  | Code Type |
| N01.1 | Rapidly progressive nephritic syndrome with focal and segmental glomerular lesions                 | Diagnosis | ICD-10-CM |
| N01.2 | Rapidly progressive nephritic syndrome with diffuse membranous glomerulonephritis                  | Diagnosis | ICD-10-CM |
| N01.3 | Rapidly progressive nephritic syndrome with diffuse mesangial proliferative glomerulonephritis     | Diagnosis | ICD-10-CM |
| N01.4 | Rapidly progressive nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis | Diagnosis | ICD-10-CM |
| N01.5 | Rapidly progressive nephritic syndrome with diffuse mesangiocapillary glomerulonephritis           | Diagnosis | ICD-10-CM |
| N01.6 | Rapidly progressive nephritic syndrome with dense deposit disease                                  | Diagnosis | ICD-10-CM |
| N01.7 | Rapidly progressive nephritic syndrome with diffuse crescentic glomerulonephritis                  | Diagnosis | ICD-10-CM |
| N01.8 | Rapidly progressive nephritic syndrome with other morphologic changes                              | Diagnosis | ICD-10-CM |
| N01.9 | Rapidly progressive nephritic syndrome with unspecified morphologic changes                        | Diagnosis | ICD-10-CM |
| N02.0 | Recurrent and persistent hematuria with minor glomerular abnormality                               | Diagnosis | ICD-10-CM |
| N02.1 | Recurrent and persistent hematuria with focal and segmental glomerular lesions                     | Diagnosis | ICD-10-CM |
| N02.2 | Recurrent and persistent hematuria with diffuse membranous glomerulonephritis                      | Diagnosis | ICD-10-CM |
| N02.3 | Recurrent and persistent hematuria with diffuse mesangial proliferative glomerulonephritis         | Diagnosis | ICD-10-CM |
| N02.4 | Recurrent and persistent hematuria with diffuse endocapillary proliferative glomerulonephritis     | Diagnosis | ICD-10-CM |
| N02.5 | Recurrent and persistent hematuria with diffuse mesangiocapillary glomerulonephritis               | Diagnosis | ICD-10-CM |
| N02.6 | Recurrent and persistent hematuria with dense deposit disease                                      | Diagnosis | ICD-10-CM |
| N02.7 | Recurrent and persistent hematuria with diffuse crescentic glomerulonephritis                      | Diagnosis | ICD-10-CM |
| N02.8 | Recurrent and persistent hematuria with other morphologic changes                                  | Diagnosis | ICD-10-CM |
| N02.9 | Recurrent and persistent hematuria with unspecified morphologic changes                            | Diagnosis | ICD-10-CM |
| N03.0 | Chronic nephritic syndrome with minor glomerular abnormality                                       | Diagnosis | ICD-10-CM |
| N03.1 | Chronic nephritic syndrome with focal and segmental glomerular lesions                             | Diagnosis | ICD-10-CM |
| N03.2 | Chronic nephritic syndrome with diffuse membranous glomerulonephritis                              | Diagnosis | ICD-10-CM |
| N03.3 | Chronic nephritic syndrome with diffuse mesangial proliferative glomerulonephritis                 | Diagnosis | ICD-10-CM |
| N03.4 | Chronic nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis             | Diagnosis | ICD-10-CM |
| N03.5 | Chronic nephritic syndrome with diffuse mesangiocapillary glomerulonephritis                       | Diagnosis | ICD-10-CM |
| N03.6 | Chronic nephritic syndrome with dense deposit disease                                              | Diagnosis | ICD-10-CM |
| N03.7 | Chronic nephritic syndrome with diffuse crescentic glomerulonephritis                              | Diagnosis | ICD-10-CM |
| N03.8 | Chronic nephritic syndrome with other morphologic changes                                          | Diagnosis | ICD-10-CM |
| N03.9 | Chronic nephritic syndrome with unspecified morphologic changes                                    | Diagnosis | ICD-10-CM |
| N04.0 | Nephrotic syndrome with minor glomerular abnormality                                               | Diagnosis | ICD-10-CM |
| N04.1 | Nephrotic syndrome with focal and segmental glomerular lesions                                     | Diagnosis | ICD-10-CM |
| N04.2 | Nephrotic syndrome with diffuse membranous glomerulonephritis                                      | Diagnosis | ICD-10-CM |
| N04.3 | Nephrotic syndrome with diffuse mesangial proliferative glomerulonephritis                         | Diagnosis | ICD-10-CM |
| N04.4 | Nephrotic syndrome with diffuse endocapillary proliferative glomerulonephritis                     | Diagnosis | ICD-10-CM |
| N04.5 | Nephrotic syndrome with diffuse mesangiocapillary glomerulonephritis                               | Diagnosis | ICD-10-CM |
| N04.6 | Nephrotic syndrome with dense deposit disease                                                      | Diagnosis | ICD-10-CM |
| N04.7 | Nephrotic syndrome with diffuse crescentic glomerulonephritis                                      | Diagnosis | ICD-10-CM |
| N04.8 | Nephrotic syndrome with other morphologic changes                                                  | Diagnosis | ICD-10-CM |
| N04.9 | Nephrotic syndrome with unspecified morphologic changes                                            | Diagnosis | ICD-10-CM |
| N05.0 | Unspecified nephritic syndrome with minor glomerular abnormality                                   | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code              | Description                                                                                | Code      |           |
|-------------------|--------------------------------------------------------------------------------------------|-----------|-----------|
|                   |                                                                                            | Category  | Code Type |
| N05.1             | Unspecified nephritic syndrome with focal and segmental glomerular lesions                 | Diagnosis | ICD-10-CM |
| N05.2             | Unspecified nephritic syndrome with diffuse membranous glomerulonephritis                  | Diagnosis | ICD-10-CM |
| N05.3             | Unspecified nephritic syndrome with diffuse mesangial proliferative glomerulonephritis     | Diagnosis | ICD-10-CM |
| N05.4             | Unspecified nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis | Diagnosis | ICD-10-CM |
| N05.5             | Unspecified nephritic syndrome with diffuse mesangiocapillary glomerulonephritis           | Diagnosis | ICD-10-CM |
| N05.6             | Unspecified nephritic syndrome with dense deposit disease                                  | Diagnosis | ICD-10-CM |
| N05.7             | Unspecified nephritic syndrome with diffuse crescentic glomerulonephritis                  | Diagnosis | ICD-10-CM |
| N05.8             | Unspecified nephritic syndrome with other morphologic changes                              | Diagnosis | ICD-10-CM |
| N05.9             | Unspecified nephritic syndrome with unspecified morphologic changes                        | Diagnosis | ICD-10-CM |
| N06.0             | Isolated proteinuria with minor glomerular abnormality                                     | Diagnosis | ICD-10-CM |
| N06.1             | Isolated proteinuria with focal and segmental glomerular lesions                           | Diagnosis | ICD-10-CM |
| N06.2             | Isolated proteinuria with diffuse membranous glomerulonephritis                            | Diagnosis | ICD-10-CM |
| N06.3             | Isolated proteinuria with diffuse mesangial proliferative glomerulonephritis               | Diagnosis | ICD-10-CM |
| N06.4             | Isolated proteinuria with diffuse endocapillary proliferative glomerulonephritis           | Diagnosis | ICD-10-CM |
| N06.5             | Isolated proteinuria with diffuse mesangiocapillary glomerulonephritis                     | Diagnosis | ICD-10-CM |
| N06.6             | Isolated proteinuria with dense deposit disease                                            | Diagnosis | ICD-10-CM |
| N06.7             | Isolated proteinuria with diffuse crescentic glomerulonephritis                            | Diagnosis | ICD-10-CM |
| N06.8             | Isolated proteinuria with other morphologic lesion                                         | Diagnosis | ICD-10-CM |
| N06.9             | Isolated proteinuria with unspecified morphologic lesion                                   | Diagnosis | ICD-10-CM |
| N08               | Glomerular disorders in diseases classified elsewhere                                      | Diagnosis | ICD-10-CM |
| N15.8             | Other specified renal tubulo-interstitial diseases                                         | Diagnosis | ICD-10-CM |
| N15.9             | Renal tubulo-interstitial disease, unspecified                                             | Diagnosis | ICD-10-CM |
| N16               | Renal tubulo-interstitial disorders in diseases classified elsewhere                       | Diagnosis | ICD-10-CM |
| N17.0             | Acute kidney failure with tubular necrosis                                                 | Diagnosis | ICD-10-CM |
| N17.1             | Acute kidney failure with acute cortical necrosis                                          | Diagnosis | ICD-10-CM |
| N17.2             | Acute kidney failure with medullary necrosis                                               | Diagnosis | ICD-10-CM |
| N17.8             | Other acute kidney failure                                                                 | Diagnosis | ICD-10-CM |
| N17.9             | Acute kidney failure, unspecified                                                          | Diagnosis | ICD-10-CM |
| N18.1             | Chronic kidney disease, stage 1                                                            | Diagnosis | ICD-10-CM |
| N18.2             | Chronic kidney disease, stage 2 (mild)                                                     | Diagnosis | ICD-10-CM |
| N18.3             | Chronic kidney disease, stage 3 (moderate)                                                 | Diagnosis | ICD-10-CM |
| N18.4             | Chronic kidney disease, stage 4 (severe)                                                   | Diagnosis | ICD-10-CM |
| N18.5             | Chronic kidney disease, stage 5                                                            | Diagnosis | ICD-10-CM |
| N18.6             | End stage renal disease                                                                    | Diagnosis | ICD-10-CM |
| N18.9             | Chronic kidney disease, unspecified                                                        | Diagnosis | ICD-10-CM |
| N19               | Unspecified kidney failure                                                                 | Diagnosis | ICD-10-CM |
| N25.89            | Other disorders resulting from impaired renal tubular function                             | Diagnosis | ICD-10-CM |
| N25.9             | Disorder resulting from impaired renal tubular function, unspecified                       | Diagnosis | ICD-10-CM |
| N26.9             | Renal sclerosis, unspecified                                                               | Diagnosis | ICD-10-CM |
| <b>Neuropathy</b> |                                                                                            |           |           |
| 053.13            | Postherpetic polyneuropathy                                                                | Diagnosis | ICD-9-CM  |
| 072.72            | Mumps polyneuropathy                                                                       | Diagnosis | ICD-9-CM  |
| 094.0             | Tabes dorsalis                                                                             | Diagnosis | ICD-9-CM  |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                       | Code      |           |
|--------|-------------------------------------------------------------------|-----------|-----------|
|        |                                                                   | Category  | Code Type |
| 250.6  | Diabetes with neurological manifestations                         | Diagnosis | ICD-9-CM  |
| 337.0  | Idiopathic peripheral autonomic neuropathy                        | Diagnosis | ICD-9-CM  |
| 337.00 | Idiopathic peripheral autonomic neuropathy, unspecified           | Diagnosis | ICD-9-CM  |
| 337.09 | Other idiopathic peripheral autonomic neuropathy                  | Diagnosis | ICD-9-CM  |
| 337.1  | Peripheral autonomic neuropathy in disorders classified elsewhere | Diagnosis | ICD-9-CM  |
| 353.5  | Neuralgic amyotrophy                                              | Diagnosis | ICD-9-CM  |
| 354.0  | Carpal tunnel syndrome                                            | Diagnosis | ICD-9-CM  |
| 354.1  | Other lesion of median nerve                                      | Diagnosis | ICD-9-CM  |
| 354.2  | Lesion of ulnar nerve                                             | Diagnosis | ICD-9-CM  |
| 354.3  | Lesion of radial nerve                                            | Diagnosis | ICD-9-CM  |
| 354.4  | Causalgia of upper limb                                           | Diagnosis | ICD-9-CM  |
| 354.5  | Mononeuritis multiplex                                            | Diagnosis | ICD-9-CM  |
| 355.0  | Lesion of sciatic nerve                                           | Diagnosis | ICD-9-CM  |
| 355.1  | Meralgia paresthetica                                             | Diagnosis | ICD-9-CM  |
| 355.2  | Other lesion of femoral nerve                                     | Diagnosis | ICD-9-CM  |
| 355.3  | Lesion of lateral popliteal nerve                                 | Diagnosis | ICD-9-CM  |
| 355.4  | Lesion of medial popliteal nerve                                  | Diagnosis | ICD-9-CM  |
| 355.5  | Tarsal tunnel syndrome                                            | Diagnosis | ICD-9-CM  |
| 355.6  | Lesion of plantar nerve                                           | Diagnosis | ICD-9-CM  |
| 355.7  | Other mononeuritis of lower limb                                  | Diagnosis | ICD-9-CM  |
| 355.71 | Causalgia of lower limb                                           | Diagnosis | ICD-9-CM  |
| 355.79 | Other mononeuritis of lower limb                                  | Diagnosis | ICD-9-CM  |
| 356    | Hereditary and idiopathic peripheral neuropathy                   | Diagnosis | ICD-9-CM  |
| 356.0  | Hereditary peripheral neuropathy                                  | Diagnosis | ICD-9-CM  |
| 356.2  | Hereditary sensory neuropathy                                     | Diagnosis | ICD-9-CM  |
| 356.4  | Idiopathic progressive polyneuropathy                             | Diagnosis | ICD-9-CM  |
| 356.8  | Other specified idiopathic peripheral neuropathy                  | Diagnosis | ICD-9-CM  |
| 356.9  | Unspecified hereditary and idiopathic peripheral neuropathy       | Diagnosis | ICD-9-CM  |
| 357    | Inflammatory and toxic neuropathy                                 | Diagnosis | ICD-9-CM  |
| 357.1  | Polyneuropathy in collagen vascular disease                       | Diagnosis | ICD-9-CM  |
| 357.2  | Polyneuropathy in diabetes                                        | Diagnosis | ICD-9-CM  |
| 357.3  | Polyneuropathy in malignant disease                               | Diagnosis | ICD-9-CM  |
| 357.4  | Polyneuropathy in other diseases classified elsewhere             | Diagnosis | ICD-9-CM  |
| 357.5  | Alcoholic polyneuropathy                                          | Diagnosis | ICD-9-CM  |
| 357.6  | Polyneuropathy due to drugs                                       | Diagnosis | ICD-9-CM  |
| 357.7  | Polyneuropathy due to other toxic agents                          | Diagnosis | ICD-9-CM  |
| 357.8  | Other inflammatory and toxic neuropathy                           | Diagnosis | ICD-9-CM  |
| 357.82 | Critical illness polyneuropathy                                   | Diagnosis | ICD-9-CM  |
| 357.89 | Other inflammatory and toxic neuropathy                           | Diagnosis | ICD-9-CM  |
| 357.9  | Unspecified inflammatory and toxic neuropathy                     | Diagnosis | ICD-9-CM  |
| 358.1  | Myasthenic syndromes in diseases classified elsewhere             | Diagnosis | ICD-9-CM  |
| 377.33 | Nutritional optic neuropathy                                      | Diagnosis | ICD-9-CM  |
| 377.34 | Toxic optic neuropathy                                            | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                         | Code      |           |
|---------|---------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                                     | Category  | Code Type |
| 377.41  | Ischemic optic neuropathy                                                                                           | Diagnosis | ICD-9-CM  |
| 713.5   | Arthropathy associated with neurological disorders                                                                  | Diagnosis | ICD-9-CM  |
| 951.0   | Injury to oculomotor nerve                                                                                          | Diagnosis | ICD-9-CM  |
| 951.1   | Injury to trochlear nerve                                                                                           | Diagnosis | ICD-9-CM  |
| 951.3   | Injury to abducens nerve                                                                                            | Diagnosis | ICD-9-CM  |
| A50.43  | Late congenital syphilitic polyneuropathy                                                                           | Diagnosis | ICD-10-CM |
| A52.15  | Late syphilitic neuropathy                                                                                          | Diagnosis | ICD-10-CM |
| A52.16  | Charcot's arthropathy (tabetic)                                                                                     | Diagnosis | ICD-10-CM |
| B02.23  | Postherpetic polyneuropathy                                                                                         | Diagnosis | ICD-10-CM |
| B26.84  | Mumps polyneuropathy                                                                                                | Diagnosis | ICD-10-CM |
| B27.01  | Gammaherpesviral mononucleosis with polyneuropathy                                                                  | Diagnosis | ICD-10-CM |
| B27.11  | Cytomegaloviral mononucleosis with polyneuropathy                                                                   | Diagnosis | ICD-10-CM |
| B27.81  | Other infectious mononucleosis with polyneuropathy                                                                  | Diagnosis | ICD-10-CM |
| B27.91  | Infectious mononucleosis, unspecified with polyneuropathy                                                           | Diagnosis | ICD-10-CM |
| E08.40  | Diabetes mellitus due to underlying condition with diabetic neuropathy, unspecified                                 | Diagnosis | ICD-10-CM |
| E08.41  | Diabetes mellitus due to underlying condition with diabetic mononeuropathy                                          | Diagnosis | ICD-10-CM |
| E08.42  | Diabetes mellitus due to underlying condition with diabetic polyneuropathy                                          | Diagnosis | ICD-10-CM |
| E08.43  | Diabetes mellitus due to underlying condition with diabetic autonomic (poly)neuropathy                              | Diagnosis | ICD-10-CM |
| E08.610 | Diabetes mellitus due to underlying condition with diabetic neuropathic arthropathy                                 | Diagnosis | ICD-10-CM |
| E09.40  | Drug or chemical induced diabetes mellitus with neurological complications with diabetic neuropathy, unspecified    | Diagnosis | ICD-10-CM |
| E09.41  | Drug or chemical induced diabetes mellitus with neurological complications with diabetic mononeuropathy             | Diagnosis | ICD-10-CM |
| E09.42  | Drug or chemical induced diabetes mellitus with neurological complications with diabetic polyneuropathy             | Diagnosis | ICD-10-CM |
| E09.43  | Drug or chemical induced diabetes mellitus with neurological complications with diabetic autonomic (poly)neuropathy | Diagnosis | ICD-10-CM |
| E09.610 | Drug or chemical induced diabetes mellitus with diabetic neuropathic arthropathy                                    | Diagnosis | ICD-10-CM |
| E10.40  | Type 1 diabetes mellitus with diabetic neuropathy, unspecified                                                      | Diagnosis | ICD-10-CM |
| E10.41  | Type 1 diabetes mellitus with diabetic mononeuropathy                                                               | Diagnosis | ICD-10-CM |
| E10.42  | Type 1 diabetes mellitus with diabetic polyneuropathy                                                               | Diagnosis | ICD-10-CM |
| E10.43  | Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy                                                   | Diagnosis | ICD-10-CM |
| E10.44  | Type 1 diabetes mellitus with diabetic amyotrophy                                                                   | Diagnosis | ICD-10-CM |
| E10.49  | Type 1 diabetes mellitus with other diabetic neurological complication                                              | Diagnosis | ICD-10-CM |
| E10.610 | Type 1 diabetes mellitus with diabetic neuropathic arthropathy                                                      | Diagnosis | ICD-10-CM |
| E11.40  | Type 2 diabetes mellitus with diabetic neuropathy, unspecified                                                      | Diagnosis | ICD-10-CM |
| E11.41  | Type 2 diabetes mellitus with diabetic mononeuropathy                                                               | Diagnosis | ICD-10-CM |
| E11.42  | Type 2 diabetes mellitus with diabetic polyneuropathy                                                               | Diagnosis | ICD-10-CM |
| E11.43  | Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy                                                   | Diagnosis | ICD-10-CM |
| E11.44  | Type 2 diabetes mellitus with diabetic amyotrophy                                                                   | Diagnosis | ICD-10-CM |
| E11.49  | Type 2 diabetes mellitus with other diabetic neurological complication                                              | Diagnosis | ICD-10-CM |
| E11.610 | Type 2 diabetes mellitus with diabetic neuropathic arthropathy                                                      | Diagnosis | ICD-10-CM |
| E13.40  | Other specified diabetes mellitus with diabetic neuropathy, unspecified                                             | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                             | Code      |           |
|---------|-----------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                         | Category  | Code Type |
| E13.41  | Other specified diabetes mellitus with diabetic mononeuropathy                          | Diagnosis | ICD-10-CM |
| E13.42  | Other specified diabetes mellitus with diabetic polyneuropathy                          | Diagnosis | ICD-10-CM |
| E13.43  | Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy              | Diagnosis | ICD-10-CM |
| E13.44  | Other specified diabetes mellitus with diabetic amyotrophy                              | Diagnosis | ICD-10-CM |
| E13.49  | Other specified diabetes mellitus with other diabetic neurological complication         | Diagnosis | ICD-10-CM |
| E13.610 | Other specified diabetes mellitus with diabetic neuropathic arthropathy                 | Diagnosis | ICD-10-CM |
| E71.522 | Adrenomyeloneuropathy                                                                   | Diagnosis | ICD-10-CM |
| G13.0   | Paraneoplastic neuromyopathy and neuropathy                                             | Diagnosis | ICD-10-CM |
| G13.1   | Other systemic atrophy primarily affecting central nervous system in neoplastic disease | Diagnosis | ICD-10-CM |
| G56.00  | Carpal tunnel syndrome, unspecified upper limb                                          | Diagnosis | ICD-10-CM |
| G56.01  | Carpal tunnel syndrome, right upper limb                                                | Diagnosis | ICD-10-CM |
| G56.02  | Carpal tunnel syndrome, left upper limb                                                 | Diagnosis | ICD-10-CM |
| G56.03  | Carpal tunnel syndrome, bilateral upper limbs                                           | Diagnosis | ICD-10-CM |
| G56.10  | Other lesions of median nerve, unspecified upper limb                                   | Diagnosis | ICD-10-CM |
| G56.11  | Other lesions of median nerve, right upper limb                                         | Diagnosis | ICD-10-CM |
| G56.12  | Other lesions of median nerve, left upper limb                                          | Diagnosis | ICD-10-CM |
| G56.13  | Other lesions of median nerve, bilateral upper limbs                                    | Diagnosis | ICD-10-CM |
| G56.20  | Lesion of ulnar nerve, unspecified upper limb                                           | Diagnosis | ICD-10-CM |
| G56.21  | Lesion of ulnar nerve, right upper limb                                                 | Diagnosis | ICD-10-CM |
| G56.22  | Lesion of ulnar nerve, left upper limb                                                  | Diagnosis | ICD-10-CM |
| G56.23  | Lesion of ulnar nerve, bilateral upper limbs                                            | Diagnosis | ICD-10-CM |
| G56.30  | Lesion of radial nerve, unspecified upper limb                                          | Diagnosis | ICD-10-CM |
| G56.31  | Lesion of radial nerve, right upper limb                                                | Diagnosis | ICD-10-CM |
| G56.32  | Lesion of radial nerve, left upper limb                                                 | Diagnosis | ICD-10-CM |
| G56.33  | Lesion of radial nerve, bilateral upper limbs                                           | Diagnosis | ICD-10-CM |
| G56.40  | Causalgia of unspecified upper limb                                                     | Diagnosis | ICD-10-CM |
| G56.41  | Causalgia of right upper limb                                                           | Diagnosis | ICD-10-CM |
| G56.42  | Causalgia of left upper limb                                                            | Diagnosis | ICD-10-CM |
| G56.43  | Causalgia of bilateral upper limbs                                                      | Diagnosis | ICD-10-CM |
| G56.80  | Other specified mononeuropathies of unspecified upper limb                              | Diagnosis | ICD-10-CM |
| G56.81  | Other specified mononeuropathies of right upper limb                                    | Diagnosis | ICD-10-CM |
| G56.82  | Other specified mononeuropathies of left upper limb                                     | Diagnosis | ICD-10-CM |
| G56.83  | Other specified mononeuropathies of bilateral upper limbs                               | Diagnosis | ICD-10-CM |
| G56.9   | Unspecified mononeuropathy of upper limb                                                | Diagnosis | ICD-10-CM |
| G56.90  | Unspecified mononeuropathy of unspecified upper limb                                    | Diagnosis | ICD-10-CM |
| G56.91  | Unspecified mononeuropathy of right upper limb                                          | Diagnosis | ICD-10-CM |
| G56.92  | Unspecified mononeuropathy of left upper limb                                           | Diagnosis | ICD-10-CM |
| G56.93  | Unspecified mononeuropathy of bilateral upper limbs                                     | Diagnosis | ICD-10-CM |
| G57.00  | Lesion of sciatic nerve, unspecified lower limb                                         | Diagnosis | ICD-10-CM |
| G57.01  | Lesion of sciatic nerve, right lower limb                                               | Diagnosis | ICD-10-CM |
| G57.02  | Lesion of sciatic nerve, left lower limb                                                | Diagnosis | ICD-10-CM |
| G57.03  | Lesion of sciatic nerve, bilateral lower limbs                                          | Diagnosis | ICD-10-CM |
| G57.10  | Meralgia paresthetica, unspecified lower limb                                           | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                                | Code      |           |
|--------|------------------------------------------------------------|-----------|-----------|
|        |                                                            | Category  | Code Type |
| G57.11 | Meralgia paresthetica, right lower limb                    | Diagnosis | ICD-10-CM |
| G57.12 | Meralgia paresthetica, left lower limb                     | Diagnosis | ICD-10-CM |
| G57.13 | Meralgia paresthetica, bilateral lower limbs               | Diagnosis | ICD-10-CM |
| G57.20 | Lesion of femoral nerve, unspecified lower limb            | Diagnosis | ICD-10-CM |
| G57.21 | Lesion of femoral nerve, right lower limb                  | Diagnosis | ICD-10-CM |
| G57.22 | Lesion of femoral nerve, left lower limb                   | Diagnosis | ICD-10-CM |
| G57.23 | Lesion of femoral nerve, bilateral lower limbs             | Diagnosis | ICD-10-CM |
| G57.30 | Lesion of lateral popliteal nerve, unspecified lower limb  | Diagnosis | ICD-10-CM |
| G57.31 | Lesion of lateral popliteal nerve, right lower limb        | Diagnosis | ICD-10-CM |
| G57.32 | Lesion of lateral popliteal nerve, left lower limb         | Diagnosis | ICD-10-CM |
| G57.40 | Lesion of medial popliteal nerve, unspecified lower limb   | Diagnosis | ICD-10-CM |
| G57.41 | Lesion of medial popliteal nerve, right lower limb         | Diagnosis | ICD-10-CM |
| G57.42 | Lesion of medial popliteal nerve, left lower limb          | Diagnosis | ICD-10-CM |
| G57.43 | Lesion of medial popliteal nerve, bilateral lower limbs    | Diagnosis | ICD-10-CM |
| G57.50 | Tarsal tunnel syndrome, unspecified lower limb             | Diagnosis | ICD-10-CM |
| G57.51 | Tarsal tunnel syndrome, right lower limb                   | Diagnosis | ICD-10-CM |
| G57.52 | Tarsal tunnel syndrome, left lower limb                    | Diagnosis | ICD-10-CM |
| G57.53 | Tarsal tunnel syndrome, bilateral lower limbs              | Diagnosis | ICD-10-CM |
| G57.60 | Lesion of plantar nerve, unspecified lower limb            | Diagnosis | ICD-10-CM |
| G57.61 | Lesion of plantar nerve, right lower limb                  | Diagnosis | ICD-10-CM |
| G57.62 | Lesion of plantar nerve, left lower limb                   | Diagnosis | ICD-10-CM |
| G57.63 | Lesion of plantar nerve, bilateral lower limbs             | Diagnosis | ICD-10-CM |
| G57.70 | Causalgia of unspecified lower limb                        | Diagnosis | ICD-10-CM |
| G57.71 | Causalgia of right lower limb                              | Diagnosis | ICD-10-CM |
| G57.72 | Causalgia of left lower limb                               | Diagnosis | ICD-10-CM |
| G57.73 | Causalgia of bilateral lower limbs                         | Diagnosis | ICD-10-CM |
| G57.80 | Other specified mononeuropathies of unspecified lower limb | Diagnosis | ICD-10-CM |
| G57.81 | Other specified mononeuropathies of right lower limb       | Diagnosis | ICD-10-CM |
| G57.82 | Other specified mononeuropathies of left lower limb        | Diagnosis | ICD-10-CM |
| G57.83 | Other specified mononeuropathies of bilateral lower limbs  | Diagnosis | ICD-10-CM |
| G57.9  | Unspecified mononeuropathy of lower limb                   | Diagnosis | ICD-10-CM |
| G57.90 | Unspecified mononeuropathy of unspecified lower limb       | Diagnosis | ICD-10-CM |
| G57.91 | Unspecified mononeuropathy of right lower limb             | Diagnosis | ICD-10-CM |
| G57.92 | Unspecified mononeuropathy of left lower limb              | Diagnosis | ICD-10-CM |
| G57.93 | Unspecified mononeuropathy of bilateral lower limbs        | Diagnosis | ICD-10-CM |
| G58.0  | Intercostal neuropathy                                     | Diagnosis | ICD-10-CM |
| G58.7  | Mononeuritis multiplex                                     | Diagnosis | ICD-10-CM |
| G58.8  | Other specified mononeuropathies                           | Diagnosis | ICD-10-CM |
| G58.9  | Mononeuropathy, unspecified                                | Diagnosis | ICD-10-CM |
| G59    | Mononeuropathy in diseases classified elsewhere            | Diagnosis | ICD-10-CM |
| G60    | Hereditary and idiopathic neuropathy                       | Diagnosis | ICD-10-CM |
| G60.0  | Hereditary motor and sensory neuropathy                    | Diagnosis | ICD-10-CM |
| G60.2  | Neuropathy in association with hereditary ataxia           | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                 | Code      |           |
|---------|-----------------------------------------------------------------------------|-----------|-----------|
|         |                                                                             | Category  | Code Type |
| G60.3   | Idiopathic progressive neuropathy                                           | Diagnosis | ICD-10-CM |
| G60.8   | Other hereditary and idiopathic neuropathies                                | Diagnosis | ICD-10-CM |
| G60.9   | Hereditary and idiopathic neuropathy, unspecified                           | Diagnosis | ICD-10-CM |
| G61     | Inflammatory polyneuropathy                                                 | Diagnosis | ICD-10-CM |
| G61.1   | Serum neuropathy                                                            | Diagnosis | ICD-10-CM |
| G61.82  | Multifocal motor neuropathy                                                 | Diagnosis | ICD-10-CM |
| G61.89  | Other inflammatory polyneuropathies                                         | Diagnosis | ICD-10-CM |
| G61.9   | Inflammatory polyneuropathy, unspecified                                    | Diagnosis | ICD-10-CM |
| G62.0   | Drug-induced polyneuropathy                                                 | Diagnosis | ICD-10-CM |
| G62.1   | Alcoholic polyneuropathy                                                    | Diagnosis | ICD-10-CM |
| G62.2   | Polyneuropathy due to other toxic agents                                    | Diagnosis | ICD-10-CM |
| G62.81  | Critical illness polyneuropathy                                             | Diagnosis | ICD-10-CM |
| G62.82  | Radiation-induced polyneuropathy                                            | Diagnosis | ICD-10-CM |
| G62.89  | Other specified polyneuropathies                                            | Diagnosis | ICD-10-CM |
| G62.9   | Polyneuropathy, unspecified                                                 | Diagnosis | ICD-10-CM |
| G63     | Polyneuropathy in diseases classified elsewhere                             | Diagnosis | ICD-10-CM |
| G64     | Other disorders of peripheral nervous system                                | Diagnosis | ICD-10-CM |
| G65.0   | Sequelae of Guillain-Barre syndrome                                         | Diagnosis | ICD-10-CM |
| G65.1   | Sequelae of other inflammatory polyneuropathy                               | Diagnosis | ICD-10-CM |
| G65.2   | Sequelae of toxic polyneuropathy                                            | Diagnosis | ICD-10-CM |
| G73.3   | Myasthenic syndromes in other diseases classified elsewhere                 | Diagnosis | ICD-10-CM |
| G90.0   | Idiopathic peripheral autonomic neuropathy                                  | Diagnosis | ICD-10-CM |
| G90.09  | Other idiopathic peripheral autonomic neuropathy                            | Diagnosis | ICD-10-CM |
| G99.0   | Autonomic neuropathy in diseases classified elsewhere                       | Diagnosis | ICD-10-CM |
| H46.2   | Nutritional optic neuropathy                                                | Diagnosis | ICD-10-CM |
| H46.3   | Toxic optic neuropathy                                                      | Diagnosis | ICD-10-CM |
| H47.01  | Ischemic optic neuropathy                                                   | Diagnosis | ICD-10-CM |
| H47.011 | Ischemic optic neuropathy, right eye                                        | Diagnosis | ICD-10-CM |
| H47.012 | Ischemic optic neuropathy, left eye                                         | Diagnosis | ICD-10-CM |
| H47.013 | Ischemic optic neuropathy, bilateral                                        | Diagnosis | ICD-10-CM |
| H47.019 | Ischemic optic neuropathy, unspecified eye                                  | Diagnosis | ICD-10-CM |
| M05.5   | Rheumatoid polyneuropathy with rheumatoid arthritis                         | Diagnosis | ICD-10-CM |
| M05.50  | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified site     | Diagnosis | ICD-10-CM |
| M05.51  | Rheumatoid polyneuropathy with rheumatoid arthritis of shoulder             | Diagnosis | ICD-10-CM |
| M05.511 | Rheumatoid polyneuropathy with rheumatoid arthritis of right shoulder       | Diagnosis | ICD-10-CM |
| M05.512 | Rheumatoid polyneuropathy with rheumatoid arthritis of left shoulder        | Diagnosis | ICD-10-CM |
| M05.519 | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified shoulder | Diagnosis | ICD-10-CM |
| M05.52  | Rheumatoid polyneuropathy with rheumatoid arthritis of elbow                | Diagnosis | ICD-10-CM |
| M05.521 | Rheumatoid polyneuropathy with rheumatoid arthritis of right elbow          | Diagnosis | ICD-10-CM |
| M05.522 | Rheumatoid polyneuropathy with rheumatoid arthritis of left elbow           | Diagnosis | ICD-10-CM |
| M05.529 | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified elbow    | Diagnosis | ICD-10-CM |
| M05.53  | Rheumatoid polyneuropathy with rheumatoid arthritis of wrist                | Diagnosis | ICD-10-CM |
| M05.531 | Rheumatoid polyneuropathy with rheumatoid arthritis of right wrist          | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                       | Code      |           |
|---------|-----------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                   | Category  | Code Type |
| M05.532 | Rheumatoid polyneuropathy with rheumatoid arthritis of left wrist                 | Diagnosis | ICD-10-CM |
| M05.539 | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified wrist          | Diagnosis | ICD-10-CM |
| M05.54  | Rheumatoid polyneuropathy with rheumatoid arthritis of hand                       | Diagnosis | ICD-10-CM |
| M05.541 | Rheumatoid polyneuropathy with rheumatoid arthritis of right hand                 | Diagnosis | ICD-10-CM |
| M05.542 | Rheumatoid polyneuropathy with rheumatoid arthritis of left hand                  | Diagnosis | ICD-10-CM |
| M05.549 | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hand           | Diagnosis | ICD-10-CM |
| M05.55  | Rheumatoid polyneuropathy with rheumatoid arthritis of hip                        | Diagnosis | ICD-10-CM |
| M05.551 | Rheumatoid polyneuropathy with rheumatoid arthritis of right hip                  | Diagnosis | ICD-10-CM |
| M05.552 | Rheumatoid polyneuropathy with rheumatoid arthritis of left hip                   | Diagnosis | ICD-10-CM |
| M05.559 | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hip            | Diagnosis | ICD-10-CM |
| M05.56  | Rheumatoid polyneuropathy with rheumatoid arthritis of knee                       | Diagnosis | ICD-10-CM |
| M05.561 | Rheumatoid polyneuropathy with rheumatoid arthritis of right knee                 | Diagnosis | ICD-10-CM |
| M05.562 | Rheumatoid polyneuropathy with rheumatoid arthritis of left knee                  | Diagnosis | ICD-10-CM |
| M05.569 | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified knee           | Diagnosis | ICD-10-CM |
| M05.57  | Rheumatoid polyneuropathy with rheumatoid arthritis of ankle and foot             | Diagnosis | ICD-10-CM |
| M05.571 | Rheumatoid polyneuropathy with rheumatoid arthritis of right ankle and foot       | Diagnosis | ICD-10-CM |
| M05.572 | Rheumatoid polyneuropathy with rheumatoid arthritis of left ankle and foot        | Diagnosis | ICD-10-CM |
| M05.579 | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified ankle and foot | Diagnosis | ICD-10-CM |
| M05.59  | Rheumatoid polyneuropathy with rheumatoid arthritis of multiple sites             | Diagnosis | ICD-10-CM |
| M14.60  | Charcot's joint, unspecified site                                                 | Diagnosis | ICD-10-CM |
| M14.611 | Charcot's joint, right shoulder                                                   | Diagnosis | ICD-10-CM |
| M14.612 | Charcot's joint, left shoulder                                                    | Diagnosis | ICD-10-CM |
| M14.619 | Charcot's joint, unspecified shoulder                                             | Diagnosis | ICD-10-CM |
| M14.621 | Charcot's joint, right elbow                                                      | Diagnosis | ICD-10-CM |
| M14.622 | Charcot's joint, left elbow                                                       | Diagnosis | ICD-10-CM |
| M14.629 | Charcot's joint, unspecified elbow                                                | Diagnosis | ICD-10-CM |
| M14.631 | Charcot's joint, right wrist                                                      | Diagnosis | ICD-10-CM |
| M14.632 | Charcot's joint, left wrist                                                       | Diagnosis | ICD-10-CM |
| M14.639 | Charcot's joint, unspecified wrist                                                | Diagnosis | ICD-10-CM |
| M14.641 | Charcot's joint, right hand                                                       | Diagnosis | ICD-10-CM |
| M14.642 | Charcot's joint, left hand                                                        | Diagnosis | ICD-10-CM |
| M14.649 | Charcot's joint, unspecified hand                                                 | Diagnosis | ICD-10-CM |
| M14.651 | Charcot's joint, right hip                                                        | Diagnosis | ICD-10-CM |
| M14.652 | Charcot's joint, left hip                                                         | Diagnosis | ICD-10-CM |
| M14.659 | Charcot's joint, unspecified hip                                                  | Diagnosis | ICD-10-CM |
| M14.661 | Charcot's joint, right knee                                                       | Diagnosis | ICD-10-CM |
| M14.662 | Charcot's joint, left knee                                                        | Diagnosis | ICD-10-CM |
| M14.669 | Charcot's joint, unspecified knee                                                 | Diagnosis | ICD-10-CM |
| M14.671 | Charcot's joint, right ankle and foot                                             | Diagnosis | ICD-10-CM |
| M14.672 | Charcot's joint, left ankle and foot                                              | Diagnosis | ICD-10-CM |
| M14.679 | Charcot's joint, unspecified ankle and foot                                       | Diagnosis | ICD-10-CM |
| M14.68  | Charcot's joint, vertebrae                                                        | Diagnosis | ICD-10-CM |
| M14.69  | Charcot's joint, multiple sites                                                   | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code           | Description                                                                                                                                | Code      |           |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|                |                                                                                                                                            | Category  | Code Type |
| M34.83         | Systemic sclerosis with polyneuropathy                                                                                                     | Diagnosis | ICD-10-CM |
| S04.10XA       | Injury of oculomotor nerve, unspecified side, initial encounter                                                                            | Diagnosis | ICD-10-CM |
| S04.11XA       | Injury of oculomotor nerve, right side, initial encounter                                                                                  | Diagnosis | ICD-10-CM |
| S04.12XA       | Injury of oculomotor nerve, left side, initial encounter                                                                                   | Diagnosis | ICD-10-CM |
| S04.20XA       | Injury of trochlear nerve, unspecified side, initial encounter                                                                             | Diagnosis | ICD-10-CM |
| S04.21XA       | Injury of trochlear nerve, right side, initial encounter                                                                                   | Diagnosis | ICD-10-CM |
| S04.22XA       | Injury of trochlear nerve, left side, initial encounter                                                                                    | Diagnosis | ICD-10-CM |
| S04.40XA       | Injury of abducent nerve, unspecified side, initial encounter                                                                              | Diagnosis | ICD-10-CM |
| S04.41XA       | Injury of abducent nerve, right side, initial encounter                                                                                    | Diagnosis | ICD-10-CM |
| S04.42XA       | Injury of abducent nerve, left side, initial encounter                                                                                     | Diagnosis | ICD-10-CM |
| <b>Obesity</b> |                                                                                                                                            |           |           |
| 278.00         | Obesity, unspecified                                                                                                                       | Diagnosis | ICD-9-CM  |
| 278.01         | Morbid obesity                                                                                                                             | Diagnosis | ICD-9-CM  |
| 278.03         | Obesity hypoventilation syndrome                                                                                                           | Diagnosis | ICD-9-CM  |
| 539.0          | Complications of gastric band procedure                                                                                                    | Diagnosis | ICD-9-CM  |
| 539.01         | Infection due to gastric band procedure                                                                                                    | Diagnosis | ICD-9-CM  |
| 539.09         | Other complications of gastric band procedure                                                                                              | Diagnosis | ICD-9-CM  |
| 539.8          | Complications of other bariatric procedure                                                                                                 | Diagnosis | ICD-9-CM  |
| 539.81         | Infection due to other bariatric procedure                                                                                                 | Diagnosis | ICD-9-CM  |
| 539.89         | Other complications of other bariatric procedure                                                                                           | Diagnosis | ICD-9-CM  |
| 649.1          | Obesity complicating pregnancy, childbirth, or the puerperium                                                                              | Diagnosis | ICD-9-CM  |
| 649.10         | Obesity complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable                         | Diagnosis | ICD-9-CM  |
| 649.11         | Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition                  | Diagnosis | ICD-9-CM  |
| 649.12         | Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication                          | Diagnosis | ICD-9-CM  |
| 649.13         | Obesity complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication                                        | Diagnosis | ICD-9-CM  |
| 649.14         | Obesity complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication                                        | Diagnosis | ICD-9-CM  |
| 649.2          | Bariatric surgery status complicating pregnancy, childbirth, or the puerperium                                                             | Diagnosis | ICD-9-CM  |
| 649.20         | Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable        | Diagnosis | ICD-9-CM  |
| 649.21         | Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition | Diagnosis | ICD-9-CM  |
| 649.22         | Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication         | Diagnosis | ICD-9-CM  |
| 649.23         | Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication                       | Diagnosis | ICD-9-CM  |
| 649.24         | Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication                       | Diagnosis | ICD-9-CM  |
| E66.01         | Morbid (severe) obesity due to excess calories                                                                                             | Diagnosis | ICD-10-CM |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                            | Code      |           |
|---------|------------------------------------------------------------------------|-----------|-----------|
|         |                                                                        | Category  | Code Type |
| E66.09  | Other obesity due to excess calories                                   | Diagnosis | ICD-10-CM |
| E66.1   | Drug-induced obesity                                                   | Diagnosis | ICD-10-CM |
| E66.2   | Morbid (severe) obesity with alveolar hypoventilation                  | Diagnosis | ICD-10-CM |
| E66.8   | Other obesity                                                          | Diagnosis | ICD-10-CM |
| E66.9   | Obesity, unspecified                                                   | Diagnosis | ICD-10-CM |
| K95.01  | Infection due to gastric band procedure                                | Diagnosis | ICD-10-CM |
| K95.09  | Other complications of gastric band procedure                          | Diagnosis | ICD-10-CM |
| K95.81  | Infection due to other bariatric procedure                             | Diagnosis | ICD-10-CM |
| K95.89  | Other complications of other bariatric procedure                       | Diagnosis | ICD-10-CM |
| O99.210 | Obesity complicating pregnancy, unspecified trimester                  | Diagnosis | ICD-10-CM |
| O99.211 | Obesity complicating pregnancy, first trimester                        | Diagnosis | ICD-10-CM |
| O99.212 | Obesity complicating pregnancy, second trimester                       | Diagnosis | ICD-10-CM |
| O99.213 | Obesity complicating pregnancy, third trimester                        | Diagnosis | ICD-10-CM |
| O99.214 | Obesity complicating childbirth                                        | Diagnosis | ICD-10-CM |
| O99.215 | Obesity complicating the puerperium                                    | Diagnosis | ICD-10-CM |
| O99.840 | Bariatric surgery status complicating pregnancy, unspecified trimester | Diagnosis | ICD-10-CM |
| O99.841 | Bariatric surgery status complicating pregnancy, first trimester       | Diagnosis | ICD-10-CM |
| O99.842 | Bariatric surgery status complicating pregnancy, second trimester      | Diagnosis | ICD-10-CM |
| O99.843 | Bariatric surgery status complicating pregnancy, third trimester       | Diagnosis | ICD-10-CM |
| O99.844 | Bariatric surgery status complicating childbirth                       | Diagnosis | ICD-10-CM |
| O99.845 | Bariatric surgery status complicating the puerperium                   | Diagnosis | ICD-10-CM |
| V45.86  | Bariatric surgery status                                               | Diagnosis | ICD-9-CM  |
| V85.3   | Body Mass Index between 30-39, adult                                   | Diagnosis | ICD-9-CM  |
| V85.30  | Body Mass Index 30.0-30.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.31  | Body Mass Index 31.0-31.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.32  | Body Mass Index 32.0-32.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.33  | Body Mass Index 33.0-33.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.34  | Body Mass Index 34.0-34.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.35  | Body Mass Index 35.0-35.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.36  | Body Mass Index 36.0-36.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.37  | Body Mass Index 37.0-37.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.38  | Body Mass Index 38.0-38.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.39  | Body Mass Index 39.0-39.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.4   | Body Mass Index 40 and over, adult                                     | Diagnosis | ICD-9-CM  |
| V85.41  | Body Mass Index 40.0-44.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.42  | Body Mass Index 45.0-49.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.43  | Body Mass Index 50.0-59.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.44  | Body Mass Index 60.0-69.9, adult                                       | Diagnosis | ICD-9-CM  |
| V85.45  | Body Mass Index 70 and over, adult                                     | Diagnosis | ICD-9-CM  |
| Z68.30  | Body mass index (BMI) 30.0-30.9, adult                                 | Diagnosis | ICD-10-CM |
| Z68.31  | Body mass index (BMI) 31.0-31.9, adult                                 | Diagnosis | ICD-10-CM |
| Z68.32  | Body mass index (BMI) 32.0-32.9, adult                                 | Diagnosis | ICD-10-CM |
| Z68.33  | Body mass index (BMI) 33.0-33.9, adult                                 | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

|                                    |                                                                                                    | <b>Code</b>     |                  |
|------------------------------------|----------------------------------------------------------------------------------------------------|-----------------|------------------|
| <b>Code</b>                        | <b>Description</b>                                                                                 | <b>Category</b> | <b>Code Type</b> |
| Z68.34                             | Body mass index (BMI) 34.0-34.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.35                             | Body mass index (BMI) 35.0-35.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.36                             | Body mass index (BMI) 36.0-36.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.37                             | Body mass index (BMI) 37.0-37.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.38                             | Body mass index (BMI) 38.0-38.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.39                             | Body mass index (BMI) 39.0-39.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.41                             | Body mass index (BMI) 40.0-44.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.42                             | Body mass index (BMI) 45.0-49.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.43                             | Body mass index (BMI) 50-59.9, adult                                                               | Diagnosis       | ICD-10-CM        |
| Z68.44                             | Body mass index (BMI) 60.0-69.9, adult                                                             | Diagnosis       | ICD-10-CM        |
| Z68.45                             | Body mass index (BMI) 70 or greater, adult                                                         | Diagnosis       | ICD-10-CM        |
| <b>Other Diuretics</b>             |                                                                                                    |                 |                  |
| C9488                              | Injection, conivaptan HCl, 1 mg                                                                    | Procedure       | HCPCS            |
| J1205                              | Injection, chlorothiazide sodium, per 500 mg                                                       | Procedure       | HCPCS            |
| <b>Peripheral Vascular Disease</b> |                                                                                                    |                 |                  |
| 440.0                              | Atherosclerosis of aorta                                                                           | Diagnosis       | ICD-9-CM         |
| 440.1                              | Atherosclerosis of renal artery                                                                    | Diagnosis       | ICD-9-CM         |
| 440.2                              | Atherosclerosis of native arteries of the extremities                                              | Diagnosis       | ICD-9-CM         |
| 440.20                             | Atherosclerosis of native arteries of the extremities, unspecified                                 | Diagnosis       | ICD-9-CM         |
| 440.21                             | Atherosclerosis of native arteries of the extremities with intermittent claudication               | Diagnosis       | ICD-9-CM         |
| 440.22                             | Atherosclerosis of native arteries of the extremities with rest pain                               | Diagnosis       | ICD-9-CM         |
| 440.23                             | Atherosclerosis of native arteries of the extremities with ulceration                              | Diagnosis       | ICD-9-CM         |
| 440.29                             | Other atherosclerosis of native arteries of the extremities                                        | Diagnosis       | ICD-9-CM         |
| 440.4                              | Chronic total occlusion of artery of the extremities                                               | Diagnosis       | ICD-9-CM         |
| 443.8                              | Other specified peripheral vascular diseases                                                       | Diagnosis       | ICD-9-CM         |
| 443.81                             | Peripheral angiopathy in diseases classified elsewhere                                             | Diagnosis       | ICD-9-CM         |
| 443.82                             | Erythromelalgia                                                                                    | Diagnosis       | ICD-9-CM         |
| 443.89                             | Other peripheral vascular disease                                                                  | Diagnosis       | ICD-9-CM         |
| 443.9                              | Unspecified peripheral vascular disease                                                            | Diagnosis       | ICD-9-CM         |
| E08.51                             | Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy without gangrene | Diagnosis       | ICD-10-CM        |
| E08.52                             | Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene    | Diagnosis       | ICD-10-CM        |
| E09.51                             | Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy without gangrene    | Diagnosis       | ICD-10-CM        |
| E09.52                             | Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene       | Diagnosis       | ICD-10-CM        |
| E10.51                             | Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene                      | Diagnosis       | ICD-10-CM        |
| E10.52                             | Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene                         | Diagnosis       | ICD-10-CM        |
| E11.51                             | Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene                      | Diagnosis       | ICD-10-CM        |
| E11.52                             | Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene                         | Diagnosis       | ICD-10-CM        |
| E13.51                             | Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene             | Diagnosis       | ICD-10-CM        |
| E13.52                             | Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene                | Diagnosis       | ICD-10-CM        |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                             | Code      |           |
|---------|---------------------------------------------------------------------------------------------------------|-----------|-----------|
|         |                                                                                                         | Category  | Code Type |
| I70.0   | Atherosclerosis of aorta                                                                                | Diagnosis | ICD-10-CM |
| I70.1   | Atherosclerosis of renal artery                                                                         | Diagnosis | ICD-10-CM |
| I70.201 | Unspecified atherosclerosis of native arteries of extremities, right leg                                | Diagnosis | ICD-10-CM |
| I70.202 | Unspecified atherosclerosis of native arteries of extremities, left leg                                 | Diagnosis | ICD-10-CM |
| I70.203 | Unspecified atherosclerosis of native arteries of extremities, bilateral legs                           | Diagnosis | ICD-10-CM |
| I70.208 | Unspecified atherosclerosis of native arteries of extremities, other extremity                          | Diagnosis | ICD-10-CM |
| I70.209 | Unspecified atherosclerosis of native arteries of extremities, unspecified extremity                    | Diagnosis | ICD-10-CM |
| I70.211 | Atherosclerosis of native arteries of extremities with intermittent claudication, right leg             | Diagnosis | ICD-10-CM |
| I70.212 | Atherosclerosis of native arteries of extremities with intermittent claudication, left leg              | Diagnosis | ICD-10-CM |
| I70.213 | Atherosclerosis of native arteries of extremities with intermittent claudication, bilateral legs        | Diagnosis | ICD-10-CM |
| I70.218 | Atherosclerosis of native arteries of extremities with intermittent claudication, other extremity       | Diagnosis | ICD-10-CM |
| I70.219 | Atherosclerosis of native arteries of extremities with intermittent claudication, unspecified extremity | Diagnosis | ICD-10-CM |
| I70.221 | Atherosclerosis of native arteries of extremities with rest pain, right leg                             | Diagnosis | ICD-10-CM |
| I70.222 | Atherosclerosis of native arteries of extremities with rest pain, left leg                              | Diagnosis | ICD-10-CM |
| I70.223 | Atherosclerosis of native arteries of extremities with rest pain, bilateral legs                        | Diagnosis | ICD-10-CM |
| I70.228 | Atherosclerosis of native arteries of extremities with rest pain, other extremity                       | Diagnosis | ICD-10-CM |
| I70.229 | Atherosclerosis of native arteries of extremities with rest pain, unspecified extremity                 | Diagnosis | ICD-10-CM |
| I70.231 | Atherosclerosis of native arteries of right leg with ulceration of thigh                                | Diagnosis | ICD-10-CM |
| I70.232 | Atherosclerosis of native arteries of right leg with ulceration of calf                                 | Diagnosis | ICD-10-CM |
| I70.233 | Atherosclerosis of native arteries of right leg with ulceration of ankle                                | Diagnosis | ICD-10-CM |
| I70.234 | Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot                     | Diagnosis | ICD-10-CM |
| I70.235 | Atherosclerosis of native arteries of right leg with ulceration of other part of foot                   | Diagnosis | ICD-10-CM |
| I70.238 | Atherosclerosis of native arteries of right leg with ulceration of other part of lower leg              | Diagnosis | ICD-10-CM |
| I70.239 | Atherosclerosis of native arteries of right leg with ulceration of unspecified site                     | Diagnosis | ICD-10-CM |
| I70.241 | Atherosclerosis of native arteries of left leg with ulceration of thigh                                 | Diagnosis | ICD-10-CM |
| I70.242 | Atherosclerosis of native arteries of left leg with ulceration of calf                                  | Diagnosis | ICD-10-CM |
| I70.243 | Atherosclerosis of native arteries of left leg with ulceration of ankle                                 | Diagnosis | ICD-10-CM |
| I70.244 | Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot                      | Diagnosis | ICD-10-CM |
| I70.245 | Atherosclerosis of native arteries of left leg with ulceration of other part of foot                    | Diagnosis | ICD-10-CM |
| I70.248 | Atherosclerosis of native arteries of left leg with ulceration of other part of lower leg               | Diagnosis | ICD-10-CM |
| I70.249 | Atherosclerosis of native arteries of left leg with ulceration of unspecified site                      | Diagnosis | ICD-10-CM |
| I70.25  | Atherosclerosis of native arteries of other extremities with ulceration                                 | Diagnosis | ICD-10-CM |
| I70.291 | Other atherosclerosis of native arteries of extremities, right leg                                      | Diagnosis | ICD-10-CM |
| I70.292 | Other atherosclerosis of native arteries of extremities, left leg                                       | Diagnosis | ICD-10-CM |
| I70.293 | Other atherosclerosis of native arteries of extremities, bilateral legs                                 | Diagnosis | ICD-10-CM |
| I70.298 | Other atherosclerosis of native arteries of extremities, other extremity                                | Diagnosis | ICD-10-CM |
| I70.299 | Other atherosclerosis of native arteries of extremities, unspecified extremity                          | Diagnosis | ICD-10-CM |
| I70.92  | Chronic total occlusion of artery of the extremities                                                    | Diagnosis | ICD-10-CM |
| I73.81  | Erythromelalgia                                                                                         | Diagnosis | ICD-10-CM |
| I73.89  | Other specified peripheral vascular diseases                                                            | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                         | Description                                                                                                                                                                                                                                 | Code      |           |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|                              |                                                                                                                                                                                                                                             | Category  | Code Type |
| I73.9                        | Peripheral vascular disease, unspecified                                                                                                                                                                                                    | Diagnosis | ICD-10-CM |
| I79.1                        | Aortitis in diseases classified elsewhere                                                                                                                                                                                                   | Diagnosis | ICD-10-CM |
| I79.8                        | Other disorders of arteries, arterioles and capillaries in diseases classified elsewhere                                                                                                                                                    | Diagnosis | ICD-10-CM |
| <b>Pneumococcal Vaccine</b>  |                                                                                                                                                                                                                                             |           |           |
| 4040F                        | Pneumococcal vaccine administered or previously received (COPD) (PV), (IBD)                                                                                                                                                                 | Procedure | CPT-2     |
| 90669                        | Pneumococcal conjugate vaccine, 7 valent (PCV7), for intramuscular use                                                                                                                                                                      | Procedure | CPT-4     |
| 90670                        | Pneumococcal conjugate vaccine, 13 valent (PCV13), for intramuscular use                                                                                                                                                                    | Procedure | CPT-4     |
| 90671                        | Pneumococcal conjugate vaccine, 15 valent (PCV15), for intramuscular use                                                                                                                                                                    | Procedure | CPT-4     |
| 90677                        | Pneumococcal conjugate vaccine, 20 valent (PCV20), for intramuscular use                                                                                                                                                                    | Procedure | CPT-4     |
| 90684                        | Pneumococcal conjugate vaccine, 21 valent (PCV21), for intramuscular use                                                                                                                                                                    | Procedure | CPT-4     |
| 90732                        | Pneumococcal polysaccharide vaccine, 23-valent (PPSV23), adult or immunosuppressed patient dosage, when administered to individuals 2 years or older, for subcutaneous or intramuscular use                                                 | Procedure | CPT-4     |
| G0009                        | Administration of pneumococcal vaccine                                                                                                                                                                                                      | Procedure | HCPCS     |
| G2157                        | Patients received both the 13-valent pneumococcal conjugate vaccine and the 23-valent pneumococcal polysaccharide vaccine at least 12 months apart, with the first occurrence after the age of 60 before or during the measurement period   | Procedure | HCPCS     |
| G2158                        | Patient had prior pneumococcal vaccine adverse reaction any time during or before the measurement period                                                                                                                                    | Procedure | HCPCS     |
| G8115                        | Patient documented to have received pneumococcal vaccination                                                                                                                                                                                | Procedure | HCPCS     |
| G8864                        | Pneumococcal vaccine administered or previously received                                                                                                                                                                                    | Procedure | HCPCS     |
| G9279                        | Pneumococcal screening performed and documentation of vaccination received prior to discharge                                                                                                                                               | Procedure | HCPCS     |
| G9991                        | Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 19th birthday and before the end of the measurement period                                                                                          | Procedure | HCPCS     |
| M0201                        | Administration of pneumococcal, influenza, hepatitis B, and/or COVID-19 vaccine inside a patient's home; reported only once per individual home per date of service when such vaccine administration(s) are performed at the patient's home | Procedure | HCPCS     |
| M1155                        | Patient had anaphylaxis due to the pneumococcal vaccine any time during or before the measurement period                                                                                                                                    | Procedure | HCPCS     |
| M1177                        | Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 19th birthday and before the end of the measurement period                                                                                          | Procedure | HCPCS     |
| M1305                        | Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 19th birthday and before the end of the measurement period                                                                                          | Procedure | HCPCS     |
| M1306                        | Patient had anaphylaxis due to the pneumococcal vaccine any time during or before the measurement period                                                                                                                                    | Procedure | HCPCS     |
| <b>Preventive Healthcare</b> |                                                                                                                                                                                                                                             |           |           |
| 0028T                        | Dual energy x-ray absorptiometry (DEXA) body composition study, one or more sites                                                                                                                                                           | Procedure | CPT-3     |
| 0508T                        | Pulse-echo ultrasound bone density measurement resulting in indicator of axial bone mineral density, tibia                                                                                                                                  | Procedure | CPT-3     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                                                                                                                                                                                          | Code Category | Code Type |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 0554T | Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; retrieval and transmission of the scan data, assessment of bone strength and fracture risk and bone mineral density, interpretation and report                                                                                                           | Procedure     | CPT-3     |
| 0555T | Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; retrieval and transmission of the scan data                                                                                                                                                                                                              | Procedure     | CPT-3     |
| 0556T | Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; assessment of bone strength and fracture risk and bone mineral density                                                                                                                                                                                   | Procedure     | CPT-3     |
| 0557T | Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; interpretation and report                                                                                                                                                                                                                                | Procedure     | CPT-3     |
| 0743T | Bone strength and fracture risk using finite element analysis of functional data and bone mineral density (BMD), with concurrent vertebral fracture assessment, utilizing data from a computed tomography scan, retrieval and transmission of the scan data, measurement of bone strength and BMD and classification of any vertebral fractures, with overall fracture-risk assessment, interpretation and report    | Procedure     | CPT-3     |
| 0749T | Bone strength and fracture-risk assessment using digital X-ray radiogrammetry-bone mineral density (DXR-BMD) analysis of bone mineral density (BMD) utilizing data from a digital X ray, retrieval and transmission of digital X-ray data, assessment of bone strength and fracture risk and BMD, interpretation and report;                                                                                         | Procedure     | CPT-3     |
| 0750T | Bone strength and fracture-risk assessment using digital X-ray radiogrammetry-bone mineral density (DXR-BMD) analysis of bone mineral density (BMD) utilizing data from a digital X ray, retrieval and transmission of digital X-ray data, assessment of bone strength and fracture risk and BMD, interpretation and report; with single-view digital X-ray examination of the hand taken for the purpose of DXR-BMD | Procedure     | CPT-3     |
| 2022F | Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist documented and reviewed; with evidence of retinopathy (DM)                                                                                                                                                                                                                                                                         | Procedure     | CPT-2     |
| 2023F | Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist documented and reviewed; without evidence of retinopathy (DM)                                                                                                                                                                                                                                                                      | Procedure     | CPT-2     |
| 3011F | Lipid panel results documented and reviewed (must include total cholesterol, HDL-C, triglycerides and calculated LDL-C) (CAD)                                                                                                                                                                                                                                                                                        | Procedure     | CPT-2     |
| 3095F | Central dual-energy X-ray absorptiometry (DXA) results documented (OP) (IBD)                                                                                                                                                                                                                                                                                                                                         | Procedure     | CPT-2     |
| 3096F | Central dual-energy X-ray absorptiometry (DXA) ordered (OP) (IBD)                                                                                                                                                                                                                                                                                                                                                    | Procedure     | CPT-2     |
| 76070 | Computed tomography, bone mineral density study, one or more sites; axial skeleton (eg, hips, pelvis, spine)                                                                                                                                                                                                                                                                                                         | Procedure     | CPT-4     |
| 76071 | Computed tomography, bone mineral density study, one or more sites; appendicular skeleton (peripheral) (eg, radius, wrist, heel)                                                                                                                                                                                                                                                                                     | Procedure     | CPT-4     |
| 76075 | Dual energy X-ray absorptiometry (DXA), bone density study, one or more sites; axial skeleton (eg, hips, pelvis, spine)                                                                                                                                                                                                                                                                                              | Procedure     | CPT-4     |
| 76076 | Dual energy X-ray absorptiometry (DXA), bone density study, one or more sites; appendicular skeleton (peripheral) (eg, radius, wrist, heel)                                                                                                                                                                                                                                                                          | Procedure     | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                              | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| 76083       | Computer aided detection (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation, with or without digitization of film radiographic images; screening mammography (List separately in addition to code for primary procedure) | Procedure            | CPT-4            |
| 76085       | Digitization of film radiographic images with computer analysis for lesion detection and further physician review for interpretation, mammography (List separately in addition to code for primary procedure)                                                                                   | Procedure            | CPT-4            |
| 76092       | Screening mammography, bilateral (two view film study of each breast)                                                                                                                                                                                                                           | Procedure            | CPT-4            |
| 76977       | Ultrasound bone density measurement and interpretation, peripheral site(s), any method                                                                                                                                                                                                          | Procedure            | CPT-4            |
| 77052       | Computer-aided detection (computer algorithm analysis of digital image data for lesion detection) with further review for interpretation, with or without digitization of film radiographic images; screening mammography (List separately in addition to code for primary procedure)           | Procedure            | CPT-4            |
| 77057       | Screening mammography, bilateral (2-view study of each breast)                                                                                                                                                                                                                                  | Procedure            | CPT-4            |
| 77078       | Computed tomography, bone mineral density study, 1 or more sites, axial skeleton (eg, hips, pelvis, spine)                                                                                                                                                                                      | Procedure            | CPT-4            |
| 77079       | Computed tomography, bone mineral density study, 1 or more sites; appendicular skeleton (peripheral) (eg, radius, wrist, heel)                                                                                                                                                                  | Procedure            | CPT-4            |
| 77080       | Osteoporosis screening                                                                                                                                                                                                                                                                          | Procedure            | CPT-4            |
| 77081       | Osteoporosis screening                                                                                                                                                                                                                                                                          | Procedure            | CPT-4            |
| 77082       | Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; vertebral fracture assessment                                                                                                                                                                                      | Procedure            | CPT-4            |
| 77085       | Dual-energy X-ray absorptiometry (DXA), bone density study, 1 or more sites; axial skeleton (eg, hips, pelvis, spine), including vertebral fracture assessment                                                                                                                                  | Procedure            | CPT-4            |
| 77086       | Vertebral fracture assessment via dual-energy X-ray absorptiometry (DXA)                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 77089       | Trabecular bone score (TBS), structural condition of the bone microarchitecture; using dual X-ray absorptiometry (DXA) or other imaging data on gray-scale variogram, calculation, with interpretation and report on fracture-risk                                                              | Procedure            | CPT-4            |
| 78350       | Bone density (bone mineral content) study, 1 or more sites; single photon absorptiometry                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 78351       | Bone density (bone mineral content) study, 1 or more sites; dual photon absorptiometry, 1 or more sites                                                                                                                                                                                         | Procedure            | CPT-4            |
| 793.82      | Inconclusive mammogram                                                                                                                                                                                                                                                                          | Diagnosis            | ICD-9-CM         |
| 80061       | Lipid panel This panel must include the following: Cholesterol, serum, total (82465) Lipoprotein, direct measurement, high density cholesterol (HDL cholesterol) (83718) Triglycerides (84478)                                                                                                  | Procedure            | CPT-4            |
| 82465       | Cholesterol, serum or whole blood, total                                                                                                                                                                                                                                                        | Procedure            | CPT-4            |
| 82470       | Cholesterol, Serum; Total And Esters                                                                                                                                                                                                                                                            | Procedure            | CPT-4            |
| 83705       | Lipids, Blood; Fractionated (cholesterol, Triglycerides, Phospholipids)                                                                                                                                                                                                                         | Procedure            | CPT-4            |
| 83718       | Lipoprotein, direct measurement; high density cholesterol (HDL cholesterol)                                                                                                                                                                                                                     | Procedure            | CPT-4            |
| 83719       | Lipoprotein, direct measurement; VLDL cholesterol                                                                                                                                                                                                                                               | Procedure            | CPT-4            |
| 83720       | Lipoprotein Cholesterol Fractionation Calculation By Formula                                                                                                                                                                                                                                    | Procedure            | CPT-4            |
| 83721       | Lipoprotein, direct measurement; LDL cholesterol                                                                                                                                                                                                                                                | Procedure            | CPT-4            |
| 83722       | Lipoprotein, direct measurement; small dense LDL cholesterol                                                                                                                                                                                                                                    | Procedure            | CPT-4            |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                                       | Code      | Code Type |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
|       | Category                                                                                                                                                                                                                                          |           |           |
| 84090 | Phospholipids, Blood                                                                                                                                                                                                                              | Procedure | CPT-4     |
| 84152 | Prostate specific antigen (PSA); complexed (direct measurement)                                                                                                                                                                                   | Procedure | CPT-4     |
| 84153 | Prostate specific antigen (PSA); total                                                                                                                                                                                                            | Procedure | CPT-4     |
| 84154 | Prostate specific antigen (PSA); free                                                                                                                                                                                                             | Procedure | CPT-4     |
| 84478 | Triglycerides                                                                                                                                                                                                                                     | Procedure | CPT-4     |
| 86316 | Immunoassay for tumor antigen, other antigen, quantitative (eg, CA 50, 72-4, 549), each                                                                                                                                                           | Procedure | CPT-4     |
| 88141 | Cytopathology, cervical or vaginal (any reporting system), requiring interpretation by physician                                                                                                                                                  | Procedure | CPT-4     |
| 88142 | Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; manual screening under physician supervision                                                                        | Procedure | CPT-4     |
| 88143 | Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with manual screening and rescreening under physician supervision                                                   | Procedure | CPT-4     |
| 88144 | Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with manual screening and computer-assisted rescreening under physician supervision                                 | Procedure | CPT-4     |
| 88145 | Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with manual screening and computer-assisted rescreening using cell selection and review under physician supervision | Procedure | CPT-4     |
| 88147 | Cytopathology smears, cervical or vaginal; screening by automated system under physician supervision                                                                                                                                              | Procedure | CPT-4     |
| 88148 | Cytopathology smears, cervical or vaginal; screening by automated system with manual rescreening under physician supervision                                                                                                                      | Procedure | CPT-4     |
| 88150 | CYTPTH SMEARS CERV/VAG 1-3; SCR N TECH PHYS SUPER                                                                                                                                                                                                 | Procedure | CPT-4     |
| 88151 | CYTOPATH SMEARS CERV/VAG 1-3; REQ PHYS INTERPT                                                                                                                                                                                                    | Procedure | CPT-4     |
| 88152 | Cytopathology, slides, cervical or vaginal; with manual screening and computer-assisted rescreening under physician supervision                                                                                                                   | Procedure | CPT-4     |
| 88153 | Cytopathology, slides, cervical or vaginal; with manual screening and rescreening under physician supervision                                                                                                                                     | Procedure | CPT-4     |
| 88154 | Cytopathology, slides, cervical or vaginal; with manual screening and computer-assisted rescreening using cell selection and review under physician supervision                                                                                   | Procedure | CPT-4     |
| 88164 | Cytopathology, slides, cervical or vaginal (the Bethesda System); manual screening under physician supervision                                                                                                                                    | Procedure | CPT-4     |
| 88165 | Cytopathology, slides, cervical or vaginal (the Bethesda System); with manual screening and rescreening under physician supervision                                                                                                               | Procedure | CPT-4     |
| 88166 | Cytopathology, slides, cervical or vaginal (the Bethesda System); with manual screening and computer-assisted rescreening under physician supervision                                                                                             | Procedure | CPT-4     |
| 88167 | Cytopathology, slides, cervical or vaginal (the Bethesda System); with manual screening and computer-assisted rescreening using cell selection and review under physician supervision                                                             | Procedure | CPT-4     |
| 88174 | Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; screening by automated system, under physician supervision                                                          | Procedure | CPT-4     |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code  | Description                                                                                                                                                                                                                    | Code Category | Code Type |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 88175 | Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with screening by automated system and manual rescreening or review, under physician supervision | Procedure     | CPT-4     |
| 92002 | Ophthalmological services: medical examination and evaluation with initiation of diagnostic and treatment program; intermediate, new patient                                                                                   | Procedure     | CPT-4     |
| 92004 | Ophthalmological services: medical examination and evaluation with initiation of diagnostic and treatment program; comprehensive, new patient, 1 or more visits                                                                | Procedure     | CPT-4     |
| 92012 | Ophthalmological services: medical examination and evaluation, with initiation or continuation of diagnostic and treatment program; intermediate, established patient                                                          | Procedure     | CPT-4     |
| 92014 | Ophthalmological services: medical examination and evaluation, with initiation or continuation of diagnostic and treatment program; comprehensive, established patient, 1 or more visits                                       | Procedure     | CPT-4     |
| 92283 | Color vision examination, extended, eg, anomaloscope or equivalent                                                                                                                                                             | Procedure     | CPT-4     |
| 92499 | Unlisted ophthalmological service or procedure                                                                                                                                                                                 | Procedure     | CPT-4     |
| 99174 | Instrument-based ocular screening (eg, photoscreening, automated-refraction), bilateral; with remote analysis and report                                                                                                       | Procedure     | CPT-4     |
| 99177 | Instrument-based ocular screening (eg, photoscreening, automated-refraction), bilateral; with on-site analysis                                                                                                                 | Procedure     | CPT-4     |
| G0101 | Cervical or vaginal cancer screening; pelvic and clinical breast examination                                                                                                                                                   | Procedure     | HCPCS     |
| G0103 | Prostate cancer screening; prostate specific antigen test (PSA)                                                                                                                                                                | Procedure     | HCPCS     |
| G0104 | Colorectal cancer screening; flexible sigmoidoscopy                                                                                                                                                                            | Procedure     | HCPCS     |
| G0105 | Colorectal cancer screening; colonoscopy on individual at high risk                                                                                                                                                            | Procedure     | HCPCS     |
| G0121 | Colorectal cancer screening; colonoscopy on individual not meeting criteria for high risk                                                                                                                                      | Procedure     | HCPCS     |
| G0123 | Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, screening by cytotechnologist under physician supervision                              | Procedure     | HCPCS     |
| G0124 | Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, requiring interpretation by physician                                                  | Procedure     | HCPCS     |
| G0130 | Single energy x-ray absorptiometry (SEXA) bone density study, one or more sites; appendicular skeleton (peripheral) (e.g., radius, wrist, heel)                                                                                | Procedure     | HCPCS     |
| G0131 | Computerized tomography bone mineral density study, one or more sites; axial skeleton (eg, hips, pelvis, spine)                                                                                                                | Procedure     | HCPCS     |
| G0132 | Computerized tomography bone mineral density study, one or more sites; appendicular skeleton (peripheral) (eg, radius, wrist, heel)                                                                                            | Procedure     | HCPCS     |
| G0133 | Ultra-sound Bone Mineral Study, One Or More Sites, Appendicular Skeleton (peripheral) (eg, Radius, Wrist, Heel)                                                                                                                | Procedure     | HCPCS     |
| G0141 | Screening cytopathology smears, cervical or vaginal, performed by automated system, with manual rescreening, requiring interpretation by physician                                                                             | Procedure     | HCPCS     |
| G0143 | Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, with manual screening and rescreening by cytotechnologist under physician supervision  | Procedure     | HCPCS     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                                                                                                                        | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| G0144       | Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, with screening by automated system, under physician supervision                                                                                   | Procedure            | HCPCS            |
| G0145       | Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, with screening by automated system and manual rescreening under physician supervision                                                             | Procedure            | HCPCS            |
| G0202       | Screening mammography, bilateral (2-view study of each breast), including computer-aided detection (CAD) when performed                                                                                                                                                                   | Procedure            | HCPCS            |
| G0236       | Digitization of film radiographic images with computer analysis for lesion detection, or computer analysis of digital mammogram for lesion detection, and further physician review for interpretation, diagnostic mammography (list separately in addition to code for primary procedure) | Procedure            | HCPCS            |
| G2102       | Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist documented and reviewed                                                                                                                                                                                 | Procedure            | HCPCS            |
| G8593       | Lipid profile results documented and reviewed (must include total cholesterol, HDL-C, triglycerides and calculated LDL-C)                                                                                                                                                                 | Procedure            | HCPCS            |
| G8725       | Fasting lipid profile performed (triglycerides, LDL-C, HDL-C and total cholesterol)                                                                                                                                                                                                       | Procedure            | HCPCS            |
| G8767       | Lipid panel results documented and reviewed (must include total cholesterol, HDL-C, triglycerides and calculated LDL-C)                                                                                                                                                                   | Procedure            | HCPCS            |
| M1220       | Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist or artificial intelligence (AI) interpretation documented and reviewed; with evidence of retinopathy                                                                                                    | Procedure            | HCPCS            |
| M1221       | Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist or artificial intelligence (AI) interpretation documented and reviewed; without evidence of retinopathy                                                                                                 | Procedure            | HCPCS            |
| P3000       | Screening Papanicolaou smear, cervical or vaginal, up to three smears, by technician under physician supervision                                                                                                                                                                          | Procedure            | HCPCS            |
| P3001       | Screening Papanicolaou smear, cervical or vaginal, up to three smears, requiring interpretation by physician                                                                                                                                                                              | Procedure            | HCPCS            |
| Q0091       | Screening Papanicolaou smear; obtaining, preparing and conveyance of cervical or vaginal smear to laboratory                                                                                                                                                                              | Procedure            | HCPCS            |
| R92.2       | Inconclusive mammogram                                                                                                                                                                                                                                                                    | Diagnosis            | ICD-10-CM        |
| S0620       | Routine ophthalmological examination including refraction; new patient                                                                                                                                                                                                                    | Procedure            | HCPCS            |
| S0621       | Routine ophthalmological examination including refraction; established patient                                                                                                                                                                                                            | Procedure            | HCPCS            |
| S3000       | Diabetic indicator; retinal eye exam, dilated, bilateral                                                                                                                                                                                                                                  | Procedure            | HCPCS            |
| V72.0       | Examination of eyes and vision                                                                                                                                                                                                                                                            | Diagnosis            | ICD-9-CM         |
| V76.10      | Unspecified breast screening                                                                                                                                                                                                                                                              | Diagnosis            | ICD-9-CM         |
| V76.11      | Screening mammogram for high-risk patient                                                                                                                                                                                                                                                 | Diagnosis            | ICD-9-CM         |
| V76.12      | Other screening mammogram                                                                                                                                                                                                                                                                 | Diagnosis            | ICD-9-CM         |
| V76.19      | Other screening breast examination                                                                                                                                                                                                                                                        | Diagnosis            | ICD-9-CM         |
| V76.2       | Screening for malignant neoplasm of the cervix                                                                                                                                                                                                                                            | Diagnosis            | ICD-9-CM         |
| V76.41      | Screening for malignant neoplasm of the rectum                                                                                                                                                                                                                                            | Diagnosis            | ICD-9-CM         |
| V76.44      | Special screening for malignant neoplasm of prostate                                                                                                                                                                                                                                      | Diagnosis            | ICD-9-CM         |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code               | Description                                                                     | Code      |           |
|--------------------|---------------------------------------------------------------------------------|-----------|-----------|
|                    |                                                                                 | Category  | Code Type |
| V76.47             | Special screening for malignant neoplasms, vagina                               | Diagnosis | ICD-9-CM  |
| V76.50             | Special screening for malignant neoplasms, intestine, unspecified               | Diagnosis | ICD-9-CM  |
| V76.51             | Special screening for malignant neoplasms, colon                                | Diagnosis | ICD-9-CM  |
| V76.52             | Special screening for malignant neoplasms, small intestine                      | Diagnosis | ICD-9-CM  |
| V77.91             | Screening for lipid disorders                                                   | Diagnosis | ICD-9-CM  |
| V80.1              | Screening for glaucoma                                                          | Diagnosis | ICD-9-CM  |
| V80.2              | Screening for other eye conditions                                              | Diagnosis | ICD-9-CM  |
| V82.81             | Special screening for osteoporosis                                              | Diagnosis | ICD-9-CM  |
| Z01.0              | Encounter for examination of eyes and vision                                    | Diagnosis | ICD-10-CM |
| Z01.00             | Encounter for examination of eyes and vision without abnormal findings          | Diagnosis | ICD-10-CM |
| Z12.10             | Encounter for screening for malignant neoplasm of intestinal tract, unspecified | Diagnosis | ICD-10-CM |
| Z12.11             | Encounter for screening for malignant neoplasm of colon                         | Diagnosis | ICD-10-CM |
| Z12.12             | Encounter for screening for malignant neoplasm of rectum                        | Diagnosis | ICD-10-CM |
| Z12.13             | Encounter for screening for malignant neoplasm of small intestine               | Diagnosis | ICD-10-CM |
| Z12.31             | Encounter for screening mammogram for malignant neoplasm of breast              | Diagnosis | ICD-10-CM |
| Z12.39             | Encounter for other screening for malignant neoplasm of breast                  | Diagnosis | ICD-10-CM |
| Z12.4              | Encounter for screening for malignant neoplasm of cervix                        | Diagnosis | ICD-10-CM |
| Z12.5              | Encounter for screening for malignant neoplasm of prostate                      | Diagnosis | ICD-10-CM |
| Z12.72             | Encounter for screening for malignant neoplasm of vagina                        | Diagnosis | ICD-10-CM |
| Z13.220            | Encounter for screening for lipid disorders                                     | Diagnosis | ICD-10-CM |
| Z13.5              | Encounter for screening for eye and ear disorders                               | Diagnosis | ICD-10-CM |
| Z13.820            | Encounter screening for osteoporosis                                            | Diagnosis | ICD-10-CM |
| <b>Retinopathy</b> |                                                                                 |           |           |
| 250.5              | Diabetes with ophthalmic manifestations                                         | Diagnosis | ICD-9-CM  |
| 361                | Retinal detachments and defects                                                 | Diagnosis | ICD-9-CM  |
| 361.0              | Retinal detachment with retinal defect                                          | Diagnosis | ICD-9-CM  |
| 361.01             | Recent retinal detachment, partial, with single defect                          | Diagnosis | ICD-9-CM  |
| 361.02             | Recent retinal detachment, partial, with multiple defects                       | Diagnosis | ICD-9-CM  |
| 361.03             | Recent retinal detachment, partial, with giant tear                             | Diagnosis | ICD-9-CM  |
| 361.04             | Recent retinal detachment, partial, with retinal dialysis                       | Diagnosis | ICD-9-CM  |
| 361.05             | Recent retinal detachment, total or subtotal                                    | Diagnosis | ICD-9-CM  |
| 361.06             | Old retinal detachment, partial                                                 | Diagnosis | ICD-9-CM  |
| 361.07             | Old retinal detachment, total or subtotal                                       | Diagnosis | ICD-9-CM  |
| 361.1              | Retinoschisis and retinal cysts                                                 | Diagnosis | ICD-9-CM  |
| 361.10             | Unspecified retinoschisis                                                       | Diagnosis | ICD-9-CM  |
| 361.11             | Flat retinoschisis                                                              | Diagnosis | ICD-9-CM  |
| 361.12             | Bullous retinoschisis                                                           | Diagnosis | ICD-9-CM  |
| 361.13             | Primary retinal cysts                                                           | Diagnosis | ICD-9-CM  |
| 361.14             | Secondary retinal cysts                                                         | Diagnosis | ICD-9-CM  |
| 361.19             | Other retinoschisis and retinal cysts                                           | Diagnosis | ICD-9-CM  |
| 361.2              | Serous retinal detachment                                                       | Diagnosis | ICD-9-CM  |
| 361.3              | Retinal defects without detachment                                              | Diagnosis | ICD-9-CM  |
| 361.30             | Unspecified retinal defect                                                      | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code   | Description                                               | Code      |           |
|--------|-----------------------------------------------------------|-----------|-----------|
|        |                                                           | Category  | Code Type |
| 361.31 | Round hole of retina without detachment                   | Diagnosis | ICD-9-CM  |
| 361.32 | Horseshoe tear of retina without detachment               | Diagnosis | ICD-9-CM  |
| 361.33 | Multiple defects of retina without detachment             | Diagnosis | ICD-9-CM  |
| 361.8  | Other forms of retinal detachment                         | Diagnosis | ICD-9-CM  |
| 361.89 | Other forms of retinal detachment                         | Diagnosis | ICD-9-CM  |
| 361.9  | Unspecified retinal detachment                            | Diagnosis | ICD-9-CM  |
| 362.0  | Diabetic retinopathy                                      | Diagnosis | ICD-9-CM  |
| 362.01 | Background diabetic retinopathy                           | Diagnosis | ICD-9-CM  |
| 362.02 | Proliferative diabetic retinopathy                        | Diagnosis | ICD-9-CM  |
| 362.03 | Nonproliferative diabetic retinopathy NOS                 | Diagnosis | ICD-9-CM  |
| 362.04 | Mild nonproliferative diabetic retinopathy                | Diagnosis | ICD-9-CM  |
| 362.05 | Moderate nonproliferative diabetic retinopathy            | Diagnosis | ICD-9-CM  |
| 362.06 | Severe nonproliferative diabetic retinopathy              | Diagnosis | ICD-9-CM  |
| 362.1  | Other background retinopathy and retinal vascular changes | Diagnosis | ICD-9-CM  |
| 362.10 | Unspecified background retinopathy                        | Diagnosis | ICD-9-CM  |
| 362.11 | Hypertensive retinopathy                                  | Diagnosis | ICD-9-CM  |
| 362.12 | Exudative retinopathy                                     | Diagnosis | ICD-9-CM  |
| 362.13 | Changes in vascular appearance of retina                  | Diagnosis | ICD-9-CM  |
| 362.14 | Retinal microaneurysms NOS                                | Diagnosis | ICD-9-CM  |
| 362.15 | Retinal telangiectasia                                    | Diagnosis | ICD-9-CM  |
| 362.16 | Retinal neovascularization NOS                            | Diagnosis | ICD-9-CM  |
| 362.17 | Other intraretinal microvascular abnormalities            | Diagnosis | ICD-9-CM  |
| 362.18 | Retinal vasculitis                                        | Diagnosis | ICD-9-CM  |
| 362.2  | Other proliferative retinopathy                           | Diagnosis | ICD-9-CM  |
| 362.20 | Retinopathy of prematurity, unspecified                   | Diagnosis | ICD-9-CM  |
| 362.22 | Retinopathy of prematurity, stage 0                       | Diagnosis | ICD-9-CM  |
| 362.23 | Retinopathy of prematurity, stage 1                       | Diagnosis | ICD-9-CM  |
| 362.24 | Retinopathy of prematurity, stage 2                       | Diagnosis | ICD-9-CM  |
| 362.25 | Retinopathy of prematurity, stage 3                       | Diagnosis | ICD-9-CM  |
| 362.26 | Retinopathy of prematurity, stage 4                       | Diagnosis | ICD-9-CM  |
| 362.27 | Retinopathy of prematurity, stage 5                       | Diagnosis | ICD-9-CM  |
| 362.29 | Other nondiabetic proliferative retinopathy               | Diagnosis | ICD-9-CM  |
| 362.41 | Central serous retinopathy                                | Diagnosis | ICD-9-CM  |
| 362.53 | Cystoid macular degeneration of retina                    | Diagnosis | ICD-9-CM  |
| 362.8  | Other retinal disorders                                   | Diagnosis | ICD-9-CM  |
| 362.81 | Retinal hemorrhage                                        | Diagnosis | ICD-9-CM  |
| 362.82 | Retinal exudates and deposits                             | Diagnosis | ICD-9-CM  |
| 362.83 | Retinal edema                                             | Diagnosis | ICD-9-CM  |
| 362.84 | Retinal ischemia                                          | Diagnosis | ICD-9-CM  |
| 362.85 | Retinal nerve fiber bundle defects                        | Diagnosis | ICD-9-CM  |
| 362.89 | Other retinal disorders                                   | Diagnosis | ICD-9-CM  |
| 379.23 | Vitreous hemorrhage                                       | Diagnosis | ICD-9-CM  |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                       | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E08.311     | Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy with macular edema                                   | Diagnosis            | ICD-10-CM        |
| E08.319     | Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy without macular edema                                | Diagnosis            | ICD-10-CM        |
| E08.3211    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, right eye              | Diagnosis            | ICD-10-CM        |
| E08.3212    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, left eye               | Diagnosis            | ICD-10-CM        |
| E08.3213    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, bilateral              | Diagnosis            | ICD-10-CM        |
| E08.3219    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye        | Diagnosis            | ICD-10-CM        |
| E08.3291    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, right eye           | Diagnosis            | ICD-10-CM        |
| E08.3292    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, left eye            | Diagnosis            | ICD-10-CM        |
| E08.3293    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, bilateral           | Diagnosis            | ICD-10-CM        |
| E08.3299    | Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye     | Diagnosis            | ICD-10-CM        |
| E08.3311    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E08.3312    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E08.3313    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E08.3319    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E08.3391    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E08.3392    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E08.3393    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E08.3399    | Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E08.3411    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, right eye            | Diagnosis            | ICD-10-CM        |
| E08.3412    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, left eye             | Diagnosis            | ICD-10-CM        |
| E08.3413    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, bilateral            | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                     | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E08.3419    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye                                                    | Diagnosis            | ICD-10-CM        |
| E08.3491    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, right eye                                                       | Diagnosis            | ICD-10-CM        |
| E08.3492    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, left eye                                                        | Diagnosis            | ICD-10-CM        |
| E08.3493    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, bilateral                                                       | Diagnosis            | ICD-10-CM        |
| E08.3499    | Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye                                                 | Diagnosis            | ICD-10-CM        |
| E08.3511    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, right eye                                                                    | Diagnosis            | ICD-10-CM        |
| E08.3512    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, left eye                                                                     | Diagnosis            | ICD-10-CM        |
| E08.3513    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, bilateral                                                                    | Diagnosis            | ICD-10-CM        |
| E08.3519    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, unspecified eye                                                              | Diagnosis            | ICD-10-CM        |
| E08.3521    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye                                 | Diagnosis            | ICD-10-CM        |
| E08.3522    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye                                  | Diagnosis            | ICD-10-CM        |
| E08.3523    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral                                 | Diagnosis            | ICD-10-CM        |
| E08.3529    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye                           | Diagnosis            | ICD-10-CM        |
| E08.3531    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye                             | Diagnosis            | ICD-10-CM        |
| E08.3532    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye                              | Diagnosis            | ICD-10-CM        |
| E08.3533    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral                             | Diagnosis            | ICD-10-CM        |
| E08.3539    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye                       | Diagnosis            | ICD-10-CM        |
| E08.3541    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye       | Diagnosis            | ICD-10-CM        |
| E08.3542    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye        | Diagnosis            | ICD-10-CM        |
| E08.3543    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral       | Diagnosis            | ICD-10-CM        |
| E08.3549    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E08.3551    | Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, right eye                           | Diagnosis            | ICD-10-CM        |
| E08.3552    | Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, left eye                            | Diagnosis            | ICD-10-CM        |
| E08.3553    | Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, bilateral                           | Diagnosis            | ICD-10-CM        |
| E08.3559    | Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, unspecified eye                     | Diagnosis            | ICD-10-CM        |
| E08.3591    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, right eye            | Diagnosis            | ICD-10-CM        |
| E08.3592    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, left eye             | Diagnosis            | ICD-10-CM        |
| E08.3593    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, bilateral            | Diagnosis            | ICD-10-CM        |
| E08.3599    | Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, unspecified eye      | Diagnosis            | ICD-10-CM        |
| E09.311     | Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy with macular edema                               | Diagnosis            | ICD-10-CM        |
| E09.319     | Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy without macular edema                            | Diagnosis            | ICD-10-CM        |
| E09.3211    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E09.3212    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E09.3213    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E09.3219    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E09.3291    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E09.3292    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E09.3293    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E09.3299    | Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E09.3311    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye      | Diagnosis            | ICD-10-CM        |
| E09.3312    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye       | Diagnosis            | ICD-10-CM        |
| E09.3313    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral      | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                        | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E09.3319    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye                        | Diagnosis            | ICD-10-CM        |
| E09.3391    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye                           | Diagnosis            | ICD-10-CM        |
| E09.3392    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye                            | Diagnosis            | ICD-10-CM        |
| E09.3393    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral                           | Diagnosis            | ICD-10-CM        |
| E09.3399    | Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye                     | Diagnosis            | ICD-10-CM        |
| E09.3411    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye                                | Diagnosis            | ICD-10-CM        |
| E09.3412    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye                                 | Diagnosis            | ICD-10-CM        |
| E09.3413    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral                                | Diagnosis            | ICD-10-CM        |
| E09.3419    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye                          | Diagnosis            | ICD-10-CM        |
| E09.3491    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye                             | Diagnosis            | ICD-10-CM        |
| E09.3492    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye                              | Diagnosis            | ICD-10-CM        |
| E09.3493    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral                             | Diagnosis            | ICD-10-CM        |
| E09.3499    | Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye                       | Diagnosis            | ICD-10-CM        |
| E09.3511    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye                                          | Diagnosis            | ICD-10-CM        |
| E09.3512    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye                                           | Diagnosis            | ICD-10-CM        |
| E09.3513    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral                                          | Diagnosis            | ICD-10-CM        |
| E09.3519    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye                                    | Diagnosis            | ICD-10-CM        |
| E09.3521    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye       | Diagnosis            | ICD-10-CM        |
| E09.3522    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye        | Diagnosis            | ICD-10-CM        |
| E09.3523    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral       | Diagnosis            | ICD-10-CM        |
| E09.3529    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye | Diagnosis            | ICD-10-CM        |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E09.3531    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye                             | Diagnosis            | ICD-10-CM        |
| E09.3532    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye                              | Diagnosis            | ICD-10-CM        |
| E09.3533    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral                             | Diagnosis            | ICD-10-CM        |
| E09.3539    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye                       | Diagnosis            | ICD-10-CM        |
| E09.3541    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye       | Diagnosis            | ICD-10-CM        |
| E09.3542    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye        | Diagnosis            | ICD-10-CM        |
| E09.3543    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral       | Diagnosis            | ICD-10-CM        |
| E09.3549    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye | Diagnosis            | ICD-10-CM        |
| E09.3551    | Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, right eye                                                                                | Diagnosis            | ICD-10-CM        |
| E09.3552    | Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, left eye                                                                                 | Diagnosis            | ICD-10-CM        |
| E09.3553    | Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, bilateral                                                                                | Diagnosis            | ICD-10-CM        |
| E09.3559    | Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye                                                                          | Diagnosis            | ICD-10-CM        |
| E09.3591    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye                                                                 | Diagnosis            | ICD-10-CM        |
| E09.3592    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye                                                                  | Diagnosis            | ICD-10-CM        |
| E09.3593    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral                                                                 | Diagnosis            | ICD-10-CM        |
| E09.3599    | Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye                                                           | Diagnosis            | ICD-10-CM        |
| E10.311     | Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema                                                                                                   | Diagnosis            | ICD-10-CM        |
| E10.319     | Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema                                                                                                | Diagnosis            | ICD-10-CM        |
| E10.3211    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye                                                                              | Diagnosis            | ICD-10-CM        |
| E10.3212    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye                                                                               | Diagnosis            | ICD-10-CM        |
| E10.3213    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral                                                                              | Diagnosis            | ICD-10-CM        |
| E10.3219    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye                                                                        | Diagnosis            | ICD-10-CM        |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E10.3291    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye           | Diagnosis            | ICD-10-CM        |
| E10.3292    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye            | Diagnosis            | ICD-10-CM        |
| E10.3293    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral           | Diagnosis            | ICD-10-CM        |
| E10.3299    | Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye     | Diagnosis            | ICD-10-CM        |
| E10.3311    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E10.3312    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E10.3313    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E10.3319    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E10.3391    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E10.3392    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E10.3393    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E10.3399    | Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E10.3411    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye            | Diagnosis            | ICD-10-CM        |
| E10.3412    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye             | Diagnosis            | ICD-10-CM        |
| E10.3413    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral            | Diagnosis            | ICD-10-CM        |
| E10.3419    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye      | Diagnosis            | ICD-10-CM        |
| E10.3491    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye         | Diagnosis            | ICD-10-CM        |
| E10.3492    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye          | Diagnosis            | ICD-10-CM        |
| E10.3493    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral         | Diagnosis            | ICD-10-CM        |
| E10.3499    | Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye   | Diagnosis            | ICD-10-CM        |
| E10.3511    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye                      | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E10.3512    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye                                                                     | Diagnosis            | ICD-10-CM        |
| E10.3513    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral                                                                    | Diagnosis            | ICD-10-CM        |
| E10.3519    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye                                                              | Diagnosis            | ICD-10-CM        |
| E10.3521    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye                                 | Diagnosis            | ICD-10-CM        |
| E10.3522    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye                                  | Diagnosis            | ICD-10-CM        |
| E10.3523    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral                                 | Diagnosis            | ICD-10-CM        |
| E10.3529    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye                           | Diagnosis            | ICD-10-CM        |
| E10.3531    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye                             | Diagnosis            | ICD-10-CM        |
| E10.3532    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye                              | Diagnosis            | ICD-10-CM        |
| E10.3533    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral                             | Diagnosis            | ICD-10-CM        |
| E10.3539    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye                       | Diagnosis            | ICD-10-CM        |
| E10.3541    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye       | Diagnosis            | ICD-10-CM        |
| E10.3542    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye        | Diagnosis            | ICD-10-CM        |
| E10.3543    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral       | Diagnosis            | ICD-10-CM        |
| E10.3549    | Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye | Diagnosis            | ICD-10-CM        |
| E10.3551    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye                                                                                | Diagnosis            | ICD-10-CM        |
| E10.3552    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye                                                                                 | Diagnosis            | ICD-10-CM        |
| E10.3553    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral                                                                                | Diagnosis            | ICD-10-CM        |
| E10.3559    | Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye                                                                          | Diagnosis            | ICD-10-CM        |
| E10.3591    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye                                                                 | Diagnosis            | ICD-10-CM        |
| E10.3592    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye                                                                  | Diagnosis            | ICD-10-CM        |
| E10.3593    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral                                                                 | Diagnosis            | ICD-10-CM        |
| E10.3599    | Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye                                                           | Diagnosis            | ICD-10-CM        |
| E10.36      | Type 1 diabetes mellitus with diabetic cataract                                                                                                                   | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                  | <b>Code Category</b> | <b>Code Type</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E10.37X1    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye                       | Diagnosis            | ICD-10-CM        |
| E10.37X2    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye                        | Diagnosis            | ICD-10-CM        |
| E10.37X3    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral                       | Diagnosis            | ICD-10-CM        |
| E10.37X9    | Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye                 | Diagnosis            | ICD-10-CM        |
| E10.39      | Type 1 diabetes mellitus with other diabetic ophthalmic complication                                                | Diagnosis            | ICD-10-CM        |
| E11.311     | Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema                                   | Diagnosis            | ICD-10-CM        |
| E11.319     | Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema                                | Diagnosis            | ICD-10-CM        |
| E11.3211    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye              | Diagnosis            | ICD-10-CM        |
| E11.3212    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye               | Diagnosis            | ICD-10-CM        |
| E11.3213    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral              | Diagnosis            | ICD-10-CM        |
| E11.3219    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye        | Diagnosis            | ICD-10-CM        |
| E11.3291    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye           | Diagnosis            | ICD-10-CM        |
| E11.3292    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye            | Diagnosis            | ICD-10-CM        |
| E11.3293    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral           | Diagnosis            | ICD-10-CM        |
| E11.3299    | Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye     | Diagnosis            | ICD-10-CM        |
| E11.3311    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E11.3312    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E11.3313    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E11.3319    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E11.3391    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E11.3392    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E11.3393    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E11.3399    | Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                          | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E11.3411    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye                                                    | Diagnosis            | ICD-10-CM        |
| E11.3412    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye                                                     | Diagnosis            | ICD-10-CM        |
| E11.3413    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral                                                    | Diagnosis            | ICD-10-CM        |
| E11.3419    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye                                              | Diagnosis            | ICD-10-CM        |
| E11.3491    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye                                                 | Diagnosis            | ICD-10-CM        |
| E11.3492    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye                                                  | Diagnosis            | ICD-10-CM        |
| E11.3493    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral                                                 | Diagnosis            | ICD-10-CM        |
| E11.3499    | Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye                                           | Diagnosis            | ICD-10-CM        |
| E11.3511    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye                                                              | Diagnosis            | ICD-10-CM        |
| E11.3512    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye                                                               | Diagnosis            | ICD-10-CM        |
| E11.3513    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral                                                              | Diagnosis            | ICD-10-CM        |
| E11.3519    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye                                                        | Diagnosis            | ICD-10-CM        |
| E11.3521    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye                           | Diagnosis            | ICD-10-CM        |
| E11.3522    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye                            | Diagnosis            | ICD-10-CM        |
| E11.3523    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral                           | Diagnosis            | ICD-10-CM        |
| E11.3529    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye                     | Diagnosis            | ICD-10-CM        |
| E11.3531    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye                       | Diagnosis            | ICD-10-CM        |
| E11.3532    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye                        | Diagnosis            | ICD-10-CM        |
| E11.3533    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral                       | Diagnosis            | ICD-10-CM        |
| E11.3539    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye                 | Diagnosis            | ICD-10-CM        |
| E11.3541    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                | <b>Code Category</b> | <b>Code Type</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E11.3542    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye        | Diagnosis            | ICD-10-CM        |
| E11.3543    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral       | Diagnosis            | ICD-10-CM        |
| E11.3549    | Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye | Diagnosis            | ICD-10-CM        |
| E11.3551    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye                                                                                | Diagnosis            | ICD-10-CM        |
| E11.3552    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye                                                                                 | Diagnosis            | ICD-10-CM        |
| E11.3553    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral                                                                                | Diagnosis            | ICD-10-CM        |
| E11.3559    | Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye                                                                          | Diagnosis            | ICD-10-CM        |
| E11.3591    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye                                                                 | Diagnosis            | ICD-10-CM        |
| E11.3592    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye                                                                  | Diagnosis            | ICD-10-CM        |
| E11.3593    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral                                                                 | Diagnosis            | ICD-10-CM        |
| E11.3599    | Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye                                                           | Diagnosis            | ICD-10-CM        |
| E11.36      | Type 2 diabetes mellitus with diabetic cataract                                                                                                                   | Diagnosis            | ICD-10-CM        |
| E11.37X1    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye                                                                     | Diagnosis            | ICD-10-CM        |
| E11.37X2    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye                                                                      | Diagnosis            | ICD-10-CM        |
| E11.37X3    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral                                                                     | Diagnosis            | ICD-10-CM        |
| E11.37X9    | Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye                                                               | Diagnosis            | ICD-10-CM        |
| E11.39      | Type 2 diabetes mellitus with other diabetic ophthalmic complication                                                                                              | Diagnosis            | ICD-10-CM        |
| E13.311     | Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema                                                                        | Diagnosis            | ICD-10-CM        |
| E13.319     | Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema                                                                     | Diagnosis            | ICD-10-CM        |
| E13.3211    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye                                                   | Diagnosis            | ICD-10-CM        |
| E13.3212    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye                                                    | Diagnosis            | ICD-10-CM        |
| E13.3213    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral                                                   | Diagnosis            | ICD-10-CM        |
| E13.3219    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye                                             | Diagnosis            | ICD-10-CM        |
| E13.3291    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye                                                | Diagnosis            | ICD-10-CM        |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                           | <b>Code Category</b> | <b>Code Type</b> |
|-------------|------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E13.3292    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye            | Diagnosis            | ICD-10-CM        |
| E13.3293    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral           | Diagnosis            | ICD-10-CM        |
| E13.3299    | Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye     | Diagnosis            | ICD-10-CM        |
| E13.3311    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye          | Diagnosis            | ICD-10-CM        |
| E13.3312    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye           | Diagnosis            | ICD-10-CM        |
| E13.3313    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral          | Diagnosis            | ICD-10-CM        |
| E13.3319    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye    | Diagnosis            | ICD-10-CM        |
| E13.3391    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye       | Diagnosis            | ICD-10-CM        |
| E13.3392    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye        | Diagnosis            | ICD-10-CM        |
| E13.3393    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral       | Diagnosis            | ICD-10-CM        |
| E13.3399    | Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye | Diagnosis            | ICD-10-CM        |
| E13.3411    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye            | Diagnosis            | ICD-10-CM        |
| E13.3412    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye             | Diagnosis            | ICD-10-CM        |
| E13.3413    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral            | Diagnosis            | ICD-10-CM        |
| E13.3419    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye      | Diagnosis            | ICD-10-CM        |
| E13.3491    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye         | Diagnosis            | ICD-10-CM        |
| E13.3492    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye          | Diagnosis            | ICD-10-CM        |
| E13.3493    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral         | Diagnosis            | ICD-10-CM        |
| E13.3499    | Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye   | Diagnosis            | ICD-10-CM        |
| E13.3511    | Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye                      | Diagnosis            | ICD-10-CM        |
| E13.3512    | Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye                       | Diagnosis            | ICD-10-CM        |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| <b>Code</b> | <b>Description</b>                                                                                                                                                         | <b>Code Category</b> | <b>Code Type</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| E13.3513    | Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral                                                                    | Diagnosis            | ICD-10-CM        |
| E13.3519    | Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye                                                              | Diagnosis            | ICD-10-CM        |
| E13.3521    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye                                 | Diagnosis            | ICD-10-CM        |
| E13.3522    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye                                  | Diagnosis            | ICD-10-CM        |
| E13.3523    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral                                 | Diagnosis            | ICD-10-CM        |
| E13.3529    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye                           | Diagnosis            | ICD-10-CM        |
| E13.3531    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye                             | Diagnosis            | ICD-10-CM        |
| E13.3532    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye                              | Diagnosis            | ICD-10-CM        |
| E13.3533    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral                             | Diagnosis            | ICD-10-CM        |
| E13.3539    | Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye                       | Diagnosis            | ICD-10-CM        |
| E13.3541    | Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye       | Diagnosis            | ICD-10-CM        |
| E13.3542    | Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye        | Diagnosis            | ICD-10-CM        |
| E13.3543    | Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral       | Diagnosis            | ICD-10-CM        |
| E13.3549    | Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye | Diagnosis            | ICD-10-CM        |
| E13.3551    | Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye                                                                                | Diagnosis            | ICD-10-CM        |
| E13.3552    | Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye                                                                                 | Diagnosis            | ICD-10-CM        |
| E13.3553    | Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral                                                                                | Diagnosis            | ICD-10-CM        |
| E13.3559    | Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye                                                                          | Diagnosis            | ICD-10-CM        |
| E13.3591    | Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye                                                                 | Diagnosis            | ICD-10-CM        |
| E13.3592    | Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye                                                                  | Diagnosis            | ICD-10-CM        |
| E13.3593    | Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral                                                                 | Diagnosis            | ICD-10-CM        |
| E13.3599    | Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye                                                           | Diagnosis            | ICD-10-CM        |
| E13.36      | Other specified diabetes mellitus with diabetic cataract                                                                                                                   | Diagnosis            | ICD-10-CM        |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code     | Description                                                                                                  | Code      |           |
|----------|--------------------------------------------------------------------------------------------------------------|-----------|-----------|
|          |                                                                                                              | Category  | Code Type |
| E13.37X1 | Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye       | Diagnosis | ICD-10-CM |
| E13.37X2 | Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, left eye        | Diagnosis | ICD-10-CM |
| E13.37X3 | Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral       | Diagnosis | ICD-10-CM |
| E13.37X9 | Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye | Diagnosis | ICD-10-CM |
| E13.39   | Other specified diabetes mellitus with other diabetic ophthalmic complication                                | Diagnosis | ICD-10-CM |
| H33.001  | Unspecified retinal detachment with retinal break, right eye                                                 | Diagnosis | ICD-10-CM |
| H33.002  | Unspecified retinal detachment with retinal break, left eye                                                  | Diagnosis | ICD-10-CM |
| H33.003  | Unspecified retinal detachment with retinal break, bilateral                                                 | Diagnosis | ICD-10-CM |
| H33.009  | Unspecified retinal detachment with retinal break, unspecified eye                                           | Diagnosis | ICD-10-CM |
| H33.011  | Retinal detachment with single break, right eye                                                              | Diagnosis | ICD-10-CM |
| H33.012  | Retinal detachment with single break, left eye                                                               | Diagnosis | ICD-10-CM |
| H33.013  | Retinal detachment with single break, bilateral                                                              | Diagnosis | ICD-10-CM |
| H33.019  | Retinal detachment with single break, unspecified eye                                                        | Diagnosis | ICD-10-CM |
| H33.021  | Retinal detachment with multiple breaks, right eye                                                           | Diagnosis | ICD-10-CM |
| H33.022  | Retinal detachment with multiple breaks, left eye                                                            | Diagnosis | ICD-10-CM |
| H33.023  | Retinal detachment with multiple breaks, bilateral                                                           | Diagnosis | ICD-10-CM |
| H33.029  | Retinal detachment with multiple breaks, unspecified eye                                                     | Diagnosis | ICD-10-CM |
| H33.031  | Retinal detachment with giant retinal tear, right eye                                                        | Diagnosis | ICD-10-CM |
| H33.032  | Retinal detachment with giant retinal tear, left eye                                                         | Diagnosis | ICD-10-CM |
| H33.033  | Retinal detachment with giant retinal tear, bilateral                                                        | Diagnosis | ICD-10-CM |
| H33.039  | Retinal detachment with giant retinal tear, unspecified eye                                                  | Diagnosis | ICD-10-CM |
| H33.041  | Retinal detachment with retinal dialysis, right eye                                                          | Diagnosis | ICD-10-CM |
| H33.042  | Retinal detachment with retinal dialysis, left eye                                                           | Diagnosis | ICD-10-CM |
| H33.043  | Retinal detachment with retinal dialysis, bilateral                                                          | Diagnosis | ICD-10-CM |
| H33.049  | Retinal detachment with retinal dialysis, unspecified eye                                                    | Diagnosis | ICD-10-CM |
| H33.051  | Total retinal detachment, right eye                                                                          | Diagnosis | ICD-10-CM |
| H33.052  | Total retinal detachment, left eye                                                                           | Diagnosis | ICD-10-CM |
| H33.053  | Total retinal detachment, bilateral                                                                          | Diagnosis | ICD-10-CM |
| H33.059  | Total retinal detachment, unspecified eye                                                                    | Diagnosis | ICD-10-CM |
| H33.101  | Unspecified retinoschisis, right eye                                                                         | Diagnosis | ICD-10-CM |
| H33.102  | Unspecified retinoschisis, left eye                                                                          | Diagnosis | ICD-10-CM |
| H33.103  | Unspecified retinoschisis, bilateral                                                                         | Diagnosis | ICD-10-CM |
| H33.109  | Unspecified retinoschisis, unspecified eye                                                                   | Diagnosis | ICD-10-CM |
| H33.111  | Cyst of ora serrata, right eye                                                                               | Diagnosis | ICD-10-CM |
| H33.112  | Cyst of ora serrata, left eye                                                                                | Diagnosis | ICD-10-CM |
| H33.113  | Cyst of ora serrata, bilateral                                                                               | Diagnosis | ICD-10-CM |
| H33.119  | Cyst of ora serrata, unspecified eye                                                                         | Diagnosis | ICD-10-CM |
| H33.191  | Other retinoschisis and retinal cysts, right eye                                                             | Diagnosis | ICD-10-CM |
| H33.192  | Other retinoschisis and retinal cysts, left eye                                                              | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                    | Code      |           |
|---------|----------------------------------------------------------------|-----------|-----------|
|         |                                                                | Category  | Code Type |
| H33.193 | Other retinoschisis and retinal cysts, bilateral               | Diagnosis | ICD-10-CM |
| H33.199 | Other retinoschisis and retinal cysts, unspecified eye         | Diagnosis | ICD-10-CM |
| H33.20  | Serous retinal detachment, unspecified eye                     | Diagnosis | ICD-10-CM |
| H33.21  | Serous retinal detachment, right eye                           | Diagnosis | ICD-10-CM |
| H33.22  | Serous retinal detachment, left eye                            | Diagnosis | ICD-10-CM |
| H33.23  | Serous retinal detachment, bilateral                           | Diagnosis | ICD-10-CM |
| H33.301 | Unspecified retinal break, right eye                           | Diagnosis | ICD-10-CM |
| H33.302 | Unspecified retinal break, left eye                            | Diagnosis | ICD-10-CM |
| H33.303 | Unspecified retinal break, bilateral                           | Diagnosis | ICD-10-CM |
| H33.309 | Unspecified retinal break, unspecified eye                     | Diagnosis | ICD-10-CM |
| H33.311 | Horseshoe tear of retina without detachment, right eye         | Diagnosis | ICD-10-CM |
| H33.312 | Horseshoe tear of retina without detachment, left eye          | Diagnosis | ICD-10-CM |
| H33.313 | Horseshoe tear of retina without detachment, bilateral         | Diagnosis | ICD-10-CM |
| H33.319 | Horseshoe tear of retina without detachment, unspecified eye   | Diagnosis | ICD-10-CM |
| H33.321 | Round hole, right eye                                          | Diagnosis | ICD-10-CM |
| H33.322 | Round hole, left eye                                           | Diagnosis | ICD-10-CM |
| H33.323 | Round hole, bilateral                                          | Diagnosis | ICD-10-CM |
| H33.329 | Round hole, unspecified eye                                    | Diagnosis | ICD-10-CM |
| H33.331 | Multiple defects of retina without detachment, right eye       | Diagnosis | ICD-10-CM |
| H33.332 | Multiple defects of retina without detachment, left eye        | Diagnosis | ICD-10-CM |
| H33.333 | Multiple defects of retina without detachment, bilateral       | Diagnosis | ICD-10-CM |
| H33.339 | Multiple defects of retina without detachment, unspecified eye | Diagnosis | ICD-10-CM |
| H33.40  | Traction detachment of retina, unspecified eye                 | Diagnosis | ICD-10-CM |
| H33.41  | Traction detachment of retina, right eye                       | Diagnosis | ICD-10-CM |
| H33.42  | Traction detachment of retina, left eye                        | Diagnosis | ICD-10-CM |
| H33.43  | Traction detachment of retina, bilateral                       | Diagnosis | ICD-10-CM |
| H33.8   | Other retinal detachments                                      | Diagnosis | ICD-10-CM |
| H35.00  | Unspecified background retinopathy                             | Diagnosis | ICD-10-CM |
| H35.011 | Changes in retinal vascular appearance, right eye              | Diagnosis | ICD-10-CM |
| H35.012 | Changes in retinal vascular appearance, left eye               | Diagnosis | ICD-10-CM |
| H35.013 | Changes in retinal vascular appearance, bilateral              | Diagnosis | ICD-10-CM |
| H35.019 | Changes in retinal vascular appearance, unspecified eye        | Diagnosis | ICD-10-CM |
| H35.021 | Exudative retinopathy, right eye                               | Diagnosis | ICD-10-CM |
| H35.022 | Exudative retinopathy, left eye                                | Diagnosis | ICD-10-CM |
| H35.023 | Exudative retinopathy, bilateral                               | Diagnosis | ICD-10-CM |
| H35.029 | Exudative retinopathy, unspecified eye                         | Diagnosis | ICD-10-CM |
| H35.031 | Hypertensive retinopathy, right eye                            | Diagnosis | ICD-10-CM |
| H35.032 | Hypertensive retinopathy, left eye                             | Diagnosis | ICD-10-CM |
| H35.033 | Hypertensive retinopathy, bilateral                            | Diagnosis | ICD-10-CM |
| H35.039 | Hypertensive retinopathy, unspecified eye                      | Diagnosis | ICD-10-CM |
| H35.041 | Retinal micro-aneurysms, unspecified, right eye                | Diagnosis | ICD-10-CM |
| H35.042 | Retinal micro-aneurysms, unspecified, left eye                 | Diagnosis | ICD-10-CM |
| H35.043 | Retinal micro-aneurysms, unspecified, bilateral                | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                   | Code      |           |
|---------|---------------------------------------------------------------|-----------|-----------|
|         |                                                               | Category  | Code Type |
| H35.049 | Retinal micro-aneurysms, unspecified, unspecified eye         | Diagnosis | ICD-10-CM |
| H35.051 | Retinal neovascularization, unspecified, right eye            | Diagnosis | ICD-10-CM |
| H35.052 | Retinal neovascularization, unspecified, left eye             | Diagnosis | ICD-10-CM |
| H35.053 | Retinal neovascularization, unspecified, bilateral            | Diagnosis | ICD-10-CM |
| H35.059 | Retinal neovascularization, unspecified, unspecified eye      | Diagnosis | ICD-10-CM |
| H35.061 | Retinal vasculitis, right eye                                 | Diagnosis | ICD-10-CM |
| H35.062 | Retinal vasculitis, left eye                                  | Diagnosis | ICD-10-CM |
| H35.063 | Retinal vasculitis, bilateral                                 | Diagnosis | ICD-10-CM |
| H35.069 | Retinal vasculitis, unspecified eye                           | Diagnosis | ICD-10-CM |
| H35.071 | Retinal telangiectasis, right eye                             | Diagnosis | ICD-10-CM |
| H35.072 | Retinal telangiectasis, left eye                              | Diagnosis | ICD-10-CM |
| H35.073 | Retinal telangiectasis, bilateral                             | Diagnosis | ICD-10-CM |
| H35.079 | Retinal telangiectasis, unspecified eye                       | Diagnosis | ICD-10-CM |
| H35.09  | Other intraretinal microvascular abnormalities                | Diagnosis | ICD-10-CM |
| H35.101 | Retinopathy of prematurity, unspecified, right eye            | Diagnosis | ICD-10-CM |
| H35.102 | Retinopathy of prematurity, unspecified, left eye             | Diagnosis | ICD-10-CM |
| H35.103 | Retinopathy of prematurity, unspecified, bilateral            | Diagnosis | ICD-10-CM |
| H35.109 | Retinopathy of prematurity, unspecified, unspecified eye      | Diagnosis | ICD-10-CM |
| H35.111 | Retinopathy of prematurity, stage 0, right eye                | Diagnosis | ICD-10-CM |
| H35.112 | Retinopathy of prematurity, stage 0, left eye                 | Diagnosis | ICD-10-CM |
| H35.113 | Retinopathy of prematurity, stage 0, bilateral                | Diagnosis | ICD-10-CM |
| H35.119 | Retinopathy of prematurity, stage 0, unspecified eye          | Diagnosis | ICD-10-CM |
| H35.121 | Retinopathy of prematurity, stage 1, right eye                | Diagnosis | ICD-10-CM |
| H35.122 | Retinopathy of prematurity, stage 1, left eye                 | Diagnosis | ICD-10-CM |
| H35.123 | Retinopathy of prematurity, stage 1, bilateral                | Diagnosis | ICD-10-CM |
| H35.129 | Retinopathy of prematurity, stage 1, unspecified eye          | Diagnosis | ICD-10-CM |
| H35.131 | Retinopathy of prematurity, stage 2, right eye                | Diagnosis | ICD-10-CM |
| H35.132 | Retinopathy of prematurity, stage 2, left eye                 | Diagnosis | ICD-10-CM |
| H35.133 | Retinopathy of prematurity, stage 2, bilateral                | Diagnosis | ICD-10-CM |
| H35.139 | Retinopathy of prematurity, stage 2, unspecified eye          | Diagnosis | ICD-10-CM |
| H35.141 | Retinopathy of prematurity, stage 3, right eye                | Diagnosis | ICD-10-CM |
| H35.142 | Retinopathy of prematurity, stage 3, left eye                 | Diagnosis | ICD-10-CM |
| H35.143 | Retinopathy of prematurity, stage 3, bilateral                | Diagnosis | ICD-10-CM |
| H35.149 | Retinopathy of prematurity, stage 3, unspecified eye          | Diagnosis | ICD-10-CM |
| H35.151 | Retinopathy of prematurity, stage 4, right eye                | Diagnosis | ICD-10-CM |
| H35.152 | Retinopathy of prematurity, stage 4, left eye                 | Diagnosis | ICD-10-CM |
| H35.153 | Retinopathy of prematurity, stage 4, bilateral                | Diagnosis | ICD-10-CM |
| H35.159 | Retinopathy of prematurity, stage 4, unspecified eye          | Diagnosis | ICD-10-CM |
| H35.161 | Retinopathy of prematurity, stage 5, right eye                | Diagnosis | ICD-10-CM |
| H35.162 | Retinopathy of prematurity, stage 5, left eye                 | Diagnosis | ICD-10-CM |
| H35.163 | Retinopathy of prematurity, stage 5, bilateral                | Diagnosis | ICD-10-CM |
| H35.169 | Retinopathy of prematurity, stage 5, unspecified eye          | Diagnosis | ICD-10-CM |
| H35.20  | Other non-diabetic proliferative retinopathy, unspecified eye | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code                       | Description                                                  | Code      |           |
|----------------------------|--------------------------------------------------------------|-----------|-----------|
|                            |                                                              | Category  | Code Type |
| H35.21                     | Other non-diabetic proliferative retinopathy, right eye      | Diagnosis | ICD-10-CM |
| H35.22                     | Other non-diabetic proliferative retinopathy, left eye       | Diagnosis | ICD-10-CM |
| H35.23                     | Other non-diabetic proliferative retinopathy, bilateral      | Diagnosis | ICD-10-CM |
| H35.351                    | Cystoid macular degeneration, right eye                      | Diagnosis | ICD-10-CM |
| H35.352                    | Cystoid macular degeneration, left eye                       | Diagnosis | ICD-10-CM |
| H35.353                    | Cystoid macular degeneration, bilateral                      | Diagnosis | ICD-10-CM |
| H35.359                    | Cystoid macular degeneration, unspecified eye                | Diagnosis | ICD-10-CM |
| H35.60                     | Retinal hemorrhage, unspecified eye                          | Diagnosis | ICD-10-CM |
| H35.61                     | Retinal hemorrhage, right eye                                | Diagnosis | ICD-10-CM |
| H35.62                     | Retinal hemorrhage, left eye                                 | Diagnosis | ICD-10-CM |
| H35.63                     | Retinal hemorrhage, bilateral                                | Diagnosis | ICD-10-CM |
| H35.711                    | Central serous chorioretinopathy, right eye                  | Diagnosis | ICD-10-CM |
| H35.712                    | Central serous chorioretinopathy, left eye                   | Diagnosis | ICD-10-CM |
| H35.713                    | Central serous chorioretinopathy, bilateral                  | Diagnosis | ICD-10-CM |
| H35.719                    | Central serous chorioretinopathy, unspecified eye            | Diagnosis | ICD-10-CM |
| H35.81                     | Retinal edema                                                | Diagnosis | ICD-10-CM |
| H35.82                     | Retinal ischemia                                             | Diagnosis | ICD-10-CM |
| H35.89                     | Other specified retinal disorders                            | Diagnosis | ICD-10-CM |
| H43.10                     | Vitreous hemorrhage, unspecified eye                         | Diagnosis | ICD-10-CM |
| H43.11                     | Vitreous hemorrhage, right eye                               | Diagnosis | ICD-10-CM |
| H43.12                     | Vitreous hemorrhage, left eye                                | Diagnosis | ICD-10-CM |
| H43.13                     | Vitreous hemorrhage, bilateral                               | Diagnosis | ICD-10-CM |
| H44.2C1                    | Degenerative myopia with retinal detachment, right eye       | Diagnosis | ICD-10-CM |
| H44.2C2                    | Degenerative myopia with retinal detachment, left eye        | Diagnosis | ICD-10-CM |
| H44.2C3                    | Degenerative myopia with retinal detachment, bilateral eye   | Diagnosis | ICD-10-CM |
| H44.2C9                    | Degenerative myopia with retinal detachment, unspecified eye | Diagnosis | ICD-10-CM |
| <b>Sickle Cell Disease</b> |                                                              |           |           |
| 282.41                     | Sickle-cell thalassemia without crisis                       | Diagnosis | ICD-9-CM  |
| 282.42                     | Sickle-cell thalassemia with crisis                          | Diagnosis | ICD-9-CM  |
| 282.60                     | Sickle-cell disease, unspecified                             | Diagnosis | ICD-9-CM  |
| 282.61                     | Hb-SS disease without crisis                                 | Diagnosis | ICD-9-CM  |
| 282.62                     | Hb-SS disease with crisis                                    | Diagnosis | ICD-9-CM  |
| 282.63                     | Sickle-cell/Hb-C disease without crisis                      | Diagnosis | ICD-9-CM  |
| 282.64                     | Sickle-cell/Hb-C disease with crisis                         | Diagnosis | ICD-9-CM  |
| 282.68                     | Other sickle-cell disease without crisis                     | Diagnosis | ICD-9-CM  |
| 282.69                     | Other sickle-cell disease with crisis                        | Diagnosis | ICD-9-CM  |
| 289.52                     | Splenic sequestration                                        | Diagnosis | ICD-9-CM  |
| 517.3                      | Acute chest syndrome                                         | Diagnosis | ICD-9-CM  |
| D57.00                     | Hb-SS disease with crisis, unspecified                       | Diagnosis | ICD-10-CM |
| D57.01                     | Hb-SS disease with acute chest syndrome                      | Diagnosis | ICD-10-CM |
| D57.02                     | Hb-SS disease with splenic sequestration                     | Diagnosis | ICD-10-CM |
| D57.03                     | Hb-SS disease with cerebral vascular involvement             | Diagnosis | ICD-10-CM |
| D57.04                     | Hb-SS disease with dactylitis                                | Diagnosis | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code           | Description                                                                                      | Code      |           |
|----------------|--------------------------------------------------------------------------------------------------|-----------|-----------|
|                |                                                                                                  | Category  | Code Type |
| D57.09         | Hb-SS disease with crisis with other specified complication                                      | Diagnosis | ICD-10-CM |
| D57.1          | Sickle-cell disease without crisis                                                               | Diagnosis | ICD-10-CM |
| D57.20         | Sickle-cell/Hb-C disease without crisis                                                          | Diagnosis | ICD-10-CM |
| D57.211        | Sickle-cell/Hb-C disease with acute chest syndrome                                               | Diagnosis | ICD-10-CM |
| D57.212        | Sickle-cell/Hb-C disease with splenic sequestration                                              | Diagnosis | ICD-10-CM |
| D57.213        | Sickle-cell/Hb-C disease with cerebral vascular involvement                                      | Diagnosis | ICD-10-CM |
| D57.214        | Sickle-cell/Hb-C disease with dactylitis                                                         | Diagnosis | ICD-10-CM |
| D57.218        | Sickle-cell/Hb-C disease with crisis with other specified complication                           | Diagnosis | ICD-10-CM |
| D57.219        | Sickle-cell/Hb-C disease with crisis, unspecified                                                | Diagnosis | ICD-10-CM |
| D57.40         | Sickle-cell thalassemia without crisis                                                           | Diagnosis | ICD-10-CM |
| D57.411        | Sickle-cell thalassemia, unspecified, with acute chest syndrome                                  | Diagnosis | ICD-10-CM |
| D57.412        | Sickle-cell thalassemia, unspecified, with splenic sequestration                                 | Diagnosis | ICD-10-CM |
| D57.413        | Sickle-cell thalassemia, unspecified, with cerebral vascular involvement                         | Diagnosis | ICD-10-CM |
| D57.414        | Sickle-cell thalassemia, unspecified, with dactylitis                                            | Diagnosis | ICD-10-CM |
| D57.418        | Sickle-cell thalassemia, unspecified, with crisis with other specified complication              | Diagnosis | ICD-10-CM |
| D57.419        | Sickle-cell thalassemia, unspecified, with crisis                                                | Diagnosis | ICD-10-CM |
| D57.42         | Sickle-cell thalassemia beta zero without crisis                                                 | Diagnosis | ICD-10-CM |
| D57.431        | Sickle-cell thalassemia beta zero with acute chest syndrome                                      | Diagnosis | ICD-10-CM |
| D57.432        | Sickle-cell thalassemia beta zero with splenic sequestration                                     | Diagnosis | ICD-10-CM |
| D57.433        | Sickle-cell thalassemia beta zero with cerebral vascular involvement                             | Diagnosis | ICD-10-CM |
| D57.434        | Sickle-cell thalassemia beta zero with dactylitis                                                | Diagnosis | ICD-10-CM |
| D57.438        | Sickle-cell thalassemia beta zero with crisis with other specified complication                  | Diagnosis | ICD-10-CM |
| D57.439        | Sickle-cell thalassemia beta zero with crisis, unspecified                                       | Diagnosis | ICD-10-CM |
| D57.44         | Sickle-cell thalassemia beta plus without crisis                                                 | Diagnosis | ICD-10-CM |
| D57.451        | Sickle-cell thalassemia beta plus with acute chest syndrome                                      | Diagnosis | ICD-10-CM |
| D57.452        | Sickle-cell thalassemia beta plus with splenic sequestration                                     | Diagnosis | ICD-10-CM |
| D57.453        | Sickle-cell thalassemia beta plus with cerebral vascular involvement                             | Diagnosis | ICD-10-CM |
| D57.454        | Sickle-cell thalassemia beta plus with dactylitis                                                | Diagnosis | ICD-10-CM |
| D57.458        | Sickle-cell thalassemia beta plus with crisis with other specified complication                  | Diagnosis | ICD-10-CM |
| D57.459        | Sickle-cell thalassemia beta plus with crisis, unspecified                                       | Diagnosis | ICD-10-CM |
| D57.80         | Other sickle-cell disorders without crisis                                                       | Diagnosis | ICD-10-CM |
| D57.811        | Other sickle-cell disorders with acute chest syndrome                                            | Diagnosis | ICD-10-CM |
| D57.812        | Other sickle-cell disorders with splenic sequestration                                           | Diagnosis | ICD-10-CM |
| D57.813        | Other sickle-cell disorders with cerebral vascular involvement                                   | Diagnosis | ICD-10-CM |
| D57.814        | Other sickle-cell disorders with dactylitis                                                      | Diagnosis | ICD-10-CM |
| D57.818        | Other sickle-cell disorders with crisis with other specified complication                        | Diagnosis | ICD-10-CM |
| D57.819        | Other sickle-cell disorders with crisis, unspecified                                             | Diagnosis | ICD-10-CM |
| <b>Smoking</b> |                                                                                                  |           |           |
| 1034F          | Current tobacco smoker (CAD, CAP, COPD, PV) (DM)                                                 | Procedure | CPT-4     |
| 305.1          | Nondependent tobacco use disorder                                                                | Diagnosis | ICD-9-CM  |
| 4001F          | Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM) (PV) | Procedure | CPT-4     |



**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code    | Description                                                                                                                                                                                                                                                                                                                                                                                                                       | Code Category | Code Type |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| 4004F   | Patient screened for tobacco use and received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (PV, CAD)                                                                                                                                                                                                                                                                    | Procedure     | CPT-4     |
| 649.0   | Tobacco use disorder complicating pregnancy, childbirth, or the puerperium                                                                                                                                                                                                                                                                                                                                                        | Diagnosis     | ICD-9-CM  |
| 649.00  | Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable                                                                                                                                                                                                                                                                                                   | Diagnosis     | ICD-9-CM  |
| 649.01  | Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition                                                                                                                                                                                                                                                                                            | Diagnosis     | ICD-9-CM  |
| 649.02  | Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication                                                                                                                                                                                                                                                                                                    | Diagnosis     | ICD-9-CM  |
| 649.03  | Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication                                                                                                                                                                                                                                                                                                                  | Diagnosis     | ICD-9-CM  |
| 649.04  | Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication                                                                                                                                                                                                                                                                                                                  | Diagnosis     | ICD-9-CM  |
| 989.84  | Toxic effect of tobacco                                                                                                                                                                                                                                                                                                                                                                                                           | Diagnosis     | ICD-9-CM  |
| 99406   | Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes                                                                                                                                                                                                                                                                                                                         | Procedure     | CPT-4     |
| 99407   | Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes                                                                                                                                                                                                                                                                                                                                            | Procedure     | CPT-4     |
| F17.200 | Nicotine dependence, unspecified, uncomplicated                                                                                                                                                                                                                                                                                                                                                                                   | Diagnosis     | ICD-10-CM |
| F17.201 | Nicotine dependence, unspecified, in remission                                                                                                                                                                                                                                                                                                                                                                                    | Diagnosis     | ICD-10-CM |
| F17.210 | Nicotine dependence, cigarettes, uncomplicated                                                                                                                                                                                                                                                                                                                                                                                    | Diagnosis     | ICD-10-CM |
| F17.211 | Nicotine dependence, cigarettes, in remission                                                                                                                                                                                                                                                                                                                                                                                     | Diagnosis     | ICD-10-CM |
| F17.220 | Nicotine dependence, chewing tobacco, uncomplicated                                                                                                                                                                                                                                                                                                                                                                               | Diagnosis     | ICD-10-CM |
| F17.221 | Nicotine dependence, chewing tobacco, in remission                                                                                                                                                                                                                                                                                                                                                                                | Diagnosis     | ICD-10-CM |
| F17.290 | Nicotine dependence, other tobacco product, uncomplicated                                                                                                                                                                                                                                                                                                                                                                         | Diagnosis     | ICD-10-CM |
| F17.291 | Nicotine dependence, other tobacco product, in remission                                                                                                                                                                                                                                                                                                                                                                          | Diagnosis     | ICD-10-CM |
| G0436   | Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes                                                                                                                                                                                                                                                                                               | Procedure     | HCPCS     |
| G0437   | Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes                                                                                                                                                                                                                                                                                                                   | Procedure     | HCPCS     |
| G9016   | Smoking cessation counseling, individual, in the absence of or in addition to any other evaluation and management service, per session (6-10 minutes) [demo project code only]                                                                                                                                                                                                                                                    | Procedure     | HCPCS     |
| G9276   | Documentation that patient is a current tobacco user                                                                                                                                                                                                                                                                                                                                                                              | Procedure     | HCPCS     |
| G9458   | Patient documented as tobacco user and received tobacco cessation intervention (must include at least one of the following: advice given to quit smoking or tobacco use, counseling on the benefits of quitting smoking or tobacco use, assistance with or referral to external smoking or tobacco cessation support programs, or current enrollment in smoking or tobacco use cessation program) if identified as a tobacco user | Procedure     | HCPCS     |
| O99.330 | Smoking (tobacco) complicating pregnancy, unspecified trimester                                                                                                                                                                                                                                                                                                                                                                   | Diagnosis     | ICD-10-CM |
| O99.331 | Smoking (tobacco) complicating pregnancy, first trimester                                                                                                                                                                                                                                                                                                                                                                         | Diagnosis     | ICD-10-CM |
| O99.332 | Smoking (tobacco) complicating pregnancy, second trimester                                                                                                                                                                                                                                                                                                                                                                        | Diagnosis     | ICD-10-CM |
| O99.333 | Smoking (tobacco) complicating pregnancy, third trimester                                                                                                                                                                                                                                                                                                                                                                         | Diagnosis     | ICD-10-CM |
| O99.334 | Smoking (tobacco) complicating childbirth                                                                                                                                                                                                                                                                                                                                                                                         | Diagnosis     | ICD-10-CM |
| O99.335 | Smoking (tobacco) complicating the puerperium                                                                                                                                                                                                                                                                                                                                                                                     | Diagnosis     | ICD-10-CM |

**Appendix J. List of Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Category III (CPT-3), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Covariates in this Request**

| Code     | Description                                                                               | Code      |           |
|----------|-------------------------------------------------------------------------------------------|-----------|-----------|
|          |                                                                                           | Category  | Code Type |
| S4995    | Smoking cessation gum                                                                     | Procedure | HCPCS     |
| S9075    | Smoking cessation treatment                                                               | Procedure | HCPCS     |
| S9453    | Smoking cessation classes, nonphysician provider, per session                             | Procedure | HCPCS     |
| T65.211A | Toxic effect of chewing tobacco, accidental (unintentional), initial encounter            | Diagnosis | ICD-10-CM |
| T65.212A | Toxic effect of chewing tobacco, intentional self-harm, initial encounter                 | Diagnosis | ICD-10-CM |
| T65.213A | Toxic effect of chewing tobacco, assault, initial encounter                               | Diagnosis | ICD-10-CM |
| T65.214A | Toxic effect of chewing tobacco, undetermined, initial encounter                          | Diagnosis | ICD-10-CM |
| T65.221A | Toxic effect of tobacco cigarettes, accidental (unintentional), initial encounter         | Diagnosis | ICD-10-CM |
| T65.222A | Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter              | Diagnosis | ICD-10-CM |
| T65.223A | Toxic effect of tobacco cigarettes, assault, initial encounter                            | Diagnosis | ICD-10-CM |
| T65.224A | Toxic effect of tobacco cigarettes, undetermined, initial encounter                       | Diagnosis | ICD-10-CM |
| T65.291A | Toxic effect of other tobacco and nicotine, accidental (unintentional), initial encounter | Diagnosis | ICD-10-CM |
| T65.292A | Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter      | Diagnosis | ICD-10-CM |
| T65.293A | Toxic effect of other tobacco and nicotine, assault, initial encounter                    | Diagnosis | ICD-10-CM |
| T65.294A | Toxic effect of other tobacco and nicotine, undetermined, initial encounter               | Diagnosis | ICD-10-CM |
| V15.82   | Personal history of tobacco use, presenting hazards to health                             | Diagnosis | ICD-9-CM  |
| Z87.891  | Personal history of nicotine dependence                                                   | Diagnosis | ICD-10-CM |

**Note:** National Drug Codes (NDCs) for products in Appendix I are also searched for in the Procedure table to define covariates.



# Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

This request executed the Cohort Identification & Descriptive Analysis (CIDA) tool version 14.2.0 to estimate the association between canagliflozin vs. sitagliptin and renal cell carcinoma (RCC), among adults with type 2 diabetes mellitus (T2DM) who use at least one oral antidiabetic drug during the baseline period, excluding baseline use of sodium-glucose cotransporter 2 inhibitors (SGLT-2 inhibitors), dipeptidyl peptidase-4 inhibitors (DPP-4 inhibitors), or [glucose-dependent insulinotropic polypeptide (GIP)/]glucagon-like peptide-1 receptor agonists (GLP-1 RAs) and those with chronic kidney disease (CKD) Stages III-V and on dialysis in the Sentinel Distributed Database (SDD).

**Query Period:** March 1, 2013 - March 31, 2025  
**Pre-index enrollment requirement:** 365 days; Medical & Drug Coverage  
**Post-index enrollment requirement:** None  
**Post-episode requirement for Type 2 analyses:** None  
**Enrollment gap:** 45 days  
**Restrictions:** Sex (F, M); ≥ 18 years; Research eligible population.  
**Age groups (baseline table):** 18-44, 45-54, 55-64, 65-74, 75+ years  
**Stratifications:** See below for subgroup details  
**Censor output categorization:** <1, 1-<2, 2-<3, 3-<4, 4+ years  
**Envelope macro:** Do NOT reclassify encounters during inpatient stay as inpatient  
**Never-exposed cohort:** No  
**Distribution of index-defining codes:** No  
**Freeze data:** Yes  
**Drop Censor Output Indicator:** Yes (do not request death data returned)

|                                                                                                                             | PRIMARY                                                |             | SECONDARY                                             |             |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|-------------------------------------------------------|-------------|
|                                                                                                                             | Canagliflozin vs. Sitagliptin: Narrow RCC (1° outcome) |             | Canagliflozin vs. Sitagliptin: Broad RCC (2° outcome) |             |
| Group*                                                                                                                      | cana_1                                                 | sita_1      | cana_2                                                | sita_2      |
| Drug/Exposure                                                                                                               |                                                        |             |                                                       |             |
| <b>Index Exposure/Comparator</b>                                                                                            |                                                        |             |                                                       |             |
| <i>Note: For all exposures, programming will be used to assess &lt;180, ≥180 days exposure in 360 days since initiation</i> |                                                        |             |                                                       |             |
|                                                                                                                             | Canagliflozin                                          | Sitagliptin | Canagliflozin                                         | Sitagliptin |
| <b>Cohort Definition</b>                                                                                                    | First valid exposure episodes during query period      |             | First valid exposure episodes during query period     |             |
| <b>Incidence Exposure Washout Period</b>                                                                                    | 0                                                      |             | 0                                                     |             |
| <b>Exclude evidence of days supply if exposure washout include dispensings</b>                                              | No (include days supply)                               |             | No                                                    |             |
| <b>Stockpiling</b>                                                                                                          | See Specifications Defining Stockpiling                |             | See Specifications Defining Stockpiling               |             |
| <b>Build Episodes on Point Exposure?</b>                                                                                    | Yes                                                    |             | Yes                                                   |             |
| <b>Create Baseline Table?</b>                                                                                               | Yes                                                    |             | Yes                                                   |             |

Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| At Risk Time                                                         |                                                                                                                                                                                              |                                                                                                                                                                                |                                                                                                                                                                               |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| End At-Risk Period at Evidence of                                    | Death; Data Partner (DP) end date; query end date; initiation of comparator drug class (DPP4i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence | Death; DP end date; query end date; initiation of comparator drug class (SGLT2i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence | Death; DP end date; query end date; initiation of comparator drug class (DPP4i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence |
| HOI Blackout Period                                                  | .                                                                                                                                                                                            | .                                                                                                                                                                              | .                                                                                                                                                                             |
| Risk window interval start                                           | 1                                                                                                                                                                                            | 1                                                                                                                                                                              | 1                                                                                                                                                                             |
| Inclusion/Exclusion Criteria                                         |                                                                                                                                                                                              |                                                                                                                                                                                |                                                                                                                                                                               |
| Inclusion/Exclusion group                                            | T2DM (ICD-9 or 10 code)                                                                                                                                                                      | T2DM (ICD-9 or 10 code)                                                                                                                                                        | T2DM (ICD-9 or 10 code)                                                                                                                                                       |
| Condition Indicator                                                  | Inclusion (CONDINCLUSION=1)                                                                                                                                                                  | Inclusion (CONDINCLUSION=1)                                                                                                                                                    | Inclusion (CONDINCLUSION=1)                                                                                                                                                   |
| Name of Include/Exclude Condition                                    | <i>diab_in; t2dm_inc</i>                                                                                                                                                                     | <i>diab_in; t2dm_inc</i>                                                                                                                                                       | <i>diab_in; t2dm_inc</i>                                                                                                                                                      |
| Evaluation Period Start & End                                        | [-365, -5]                                                                                                                                                                                   | [-365, -5]                                                                                                                                                                     | [-365, -5]                                                                                                                                                                    |
| Care Setting/PDX                                                     | Any care setting                                                                                                                                                                             | Any care setting                                                                                                                                                               | Any care setting                                                                                                                                                              |
| Principal Diagnosis Position                                         | Any                                                                                                                                                                                          | Any                                                                                                                                                                            | Any                                                                                                                                                                           |
| # of instances the criteria should be found in the eval. period      | 1                                                                                                                                                                                            | 1                                                                                                                                                                              | 1                                                                                                                                                                             |
| AND                                                                  |                                                                                                                                                                                              | AND                                                                                                                                                                            |                                                                                                                                                                               |
| Inclusion/Exclusion group                                            | Oral antidiabetic drug (at least one)                                                                                                                                                        | Oral antidiabetic drug (at least one)                                                                                                                                          | Oral antidiabetic drug (at least one)                                                                                                                                         |
| Condition Indicator                                                  | Inclusion (CONDINCLUSION=1)                                                                                                                                                                  | Inclusion (CONDINCLUSION=1)                                                                                                                                                    | Inclusion (CONDINCLUSION=1)                                                                                                                                                   |
| Name of Include/Exclude Condition                                    | <i>diab_in; antidia_inc</i>                                                                                                                                                                  | <i>diab_in; antidia_inc</i>                                                                                                                                                    | <i>diab_in; antidia_inc</i>                                                                                                                                                   |
| Evaluation Period Start & End                                        | [-365, -1]                                                                                                                                                                                   | [-365, -1]                                                                                                                                                                     | [-365, -1]                                                                                                                                                                    |
| Care Setting/PDX                                                     | Any care setting; PX & RX tables                                                                                                                                                             | Any care setting; PX & RX tables                                                                                                                                               | Any care setting; PX & RX tables                                                                                                                                              |
| Principal Diagnosis Position                                         | --                                                                                                                                                                                           | --                                                                                                                                                                             | --                                                                                                                                                                            |
| Exclude evidence of days supply if inclusion includes dispensings    | No (search for date or interval)                                                                                                                                                             | No                                                                                                                                                                             | No                                                                                                                                                                            |
| # of instances the criteria should be found in the evaluation period | 1                                                                                                                                                                                            | 1                                                                                                                                                                              | 1                                                                                                                                                                             |

**Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

|                                                                          |                                                                                                 |                         |                                                                                                 |                                                                                                 |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Inclusion/Exclusion group</b>                                         | Type 1 diabetes mellitus (T1DM) (ICD-9 or 10 code)                                              |                         | T1DM (ICD-9 or 10 code)                                                                         |                                                                                                 |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                                     |                         | Exclusion (CONDINCLUSION=0)                                                                     |                                                                                                 |
| <b>Name of Include/Exclude Condition</b>                                 | <i>t1dm_ex</i>                                                                                  |                         | <i>t1dm_ex</i>                                                                                  |                                                                                                 |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, -5]                                                                                      |                         | [-365, -5]                                                                                      |                                                                                                 |
| <b>Care Setting/PDX</b>                                                  | Any care setting                                                                                |                         | Any care setting                                                                                |                                                                                                 |
| <b>Principal Diagnosis Position</b>                                      | Any                                                                                             |                         | Any                                                                                             |                                                                                                 |
| <b># of instances the criteria should be found in the eval. period</b>   | 1                                                                                               |                         | 1                                                                                               |                                                                                                 |
| <b>Inclusion/Exclusion group</b>                                         | Prior CANA                                                                                      | Prior SITA              | Prior CANA                                                                                      | Prior SITA                                                                                      |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                                     |                         | Exclusion (CONDINCLUSION=0)                                                                     |                                                                                                 |
| <b>Name of Include/Exclude Condition</b>                                 | <i>cana_ex</i>                                                                                  | <i>sita_ex</i>          | <i>cana_ex</i>                                                                                  | <i>sita_ex</i>                                                                                  |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, -1]                                                                                      |                         | [-365, -1]                                                                                      |                                                                                                 |
| <b>Care Setting/PDX</b>                                                  | Any care setting; PX & RX tables                                                                |                         | Any care setting; PX & RX tables                                                                |                                                                                                 |
| <b>Principal Diagnosis Position</b>                                      | Not applicable (N/A)                                                                            |                         | N/A                                                                                             |                                                                                                 |
| <b>Exclude evidence of days supply if exclusion includes dispensings</b> | No                                                                                              |                         | No                                                                                              |                                                                                                 |
| <b># of instances criterion should be found in eval. period</b>          | 1                                                                                               |                         | 1                                                                                               |                                                                                                 |
| <b>Inclusion/Exclusion group</b>                                         | <b>Other drugs:</b> non-CANA SGLT-2i, DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a |                         | <b>Other drugs:</b> non-CANA SGLT-2i, DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a | <b>Other drugs:</b> SGLT-2i, non-SITA DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                                     |                         | Exclusion (CONDINCLUSION=0)                                                                     |                                                                                                 |
| <b>Name of Include/Exclude Condition</b>                                 | <i>other_noncana_ex</i>                                                                         | <i>other_nonsita_ex</i> | <i>other_noncana_ex</i>                                                                         | <i>other_nonsita_ex</i>                                                                         |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, 0]                                                                                       |                         | [-365, 0]                                                                                       |                                                                                                 |
| <b>Care Setting/PDX</b>                                                  | Any care setting; PX & RX tables                                                                |                         | Any care setting; PX & RX tables                                                                |                                                                                                 |
| <b>Principal Diagnosis Position</b>                                      | N/A                                                                                             |                         | N/A                                                                                             |                                                                                                 |
| <b>Exclude evidence of days supply if exclusion includes dispensings</b> | No                                                                                              |                         | No                                                                                              |                                                                                                 |
| <b># of instances criterion should be found in eval. period</b>          | 1                                                                                               |                         | 1                                                                                               |                                                                                                 |

**Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

|                                                                              |                                                                                                                                                                                                                                                  |                                                                                                                                     |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inclusion/Exclusion group</b>                                             | Chronic Kidney Disease (Stages III-V) or on dialysis                                                                                                                                                                                             | Chronic Kidney Disease (Stages III-V) or on dialysis                                                                                |
| <b>Condition Indicator</b>                                                   | Exclusion (CONDINCLUSION=0)                                                                                                                                                                                                                      | Exclusion (CONDINCLUSION=0)                                                                                                         |
| <b>Name of Include/Exclude Condition</b>                                     | <i>ckd_ex</i>                                                                                                                                                                                                                                    | <i>ckd_ex</i>                                                                                                                       |
| <b>Evaluation Period Start &amp; End</b>                                     | [-365, -1]                                                                                                                                                                                                                                       | [-365, -1]                                                                                                                          |
| <b>Care Setting/PDX</b>                                                      | Any care setting, Dx and Px                                                                                                                                                                                                                      | Any care setting, Dx and Px                                                                                                         |
| <b>Principal Diagnosis Position</b>                                          | Any                                                                                                                                                                                                                                              | Any                                                                                                                                 |
| <b># of instances the criteria should be found in the eval. period</b>       | 1                                                                                                                                                                                                                                                | 1                                                                                                                                   |
| <b>Inclusion/Exclusion group</b>                                             | Prior renal cell carcinoma:<br>>1 prior broad RCC code day OR ≥1 (history of kidney cancer or acquired absence of kidney) code day                                                                                                               | Prior renal cell carcinoma:<br>>1 prior broad RCC code days OR ≥1 (history of kidney cancer or acquired absence of kidney) code day |
| <b>Condition Indicator</b>                                                   | Exclusion (CONDINCLUSION=0)                                                                                                                                                                                                                      | Exclusion (CONDINCLUSION=0)                                                                                                         |
| <b>Name of Include/Exclude Condition</b>                                     | <i>broad_rcc_ex, rcc_hx_ex</i>                                                                                                                                                                                                                   | <i>broad_rcc_ex, rcc_hx_ex</i>                                                                                                      |
| <b>Evaluation Period Start &amp; End</b>                                     | [-ever, 0]                                                                                                                                                                                                                                       | [-ever, 0]                                                                                                                          |
| <b>Care Setting/PDX</b>                                                      | Any care setting                                                                                                                                                                                                                                 | Any care setting                                                                                                                    |
| <b>Principal Diagnosis Position</b>                                          | Any                                                                                                                                                                                                                                              | Any                                                                                                                                 |
| <b># of instances the criteria should be found in the evaluation period</b>  | 2 (prior broad RCC codes)<br>1 (history of kidney cancer or acquired absence of kidney)                                                                                                                                                          | 2 (prior broad RCC codes)<br>1 (history of kidney cancer or acquired absence of kidney)                                             |
| <b>Event/Outcome</b>                                                         |                                                                                                                                                                                                                                                  |                                                                                                                                     |
| <b>Outcome</b>                                                               | <b>Narrow Renal Cell Carinoma (RCC):</b><br>Earliest occurrence of NarrowRCC_Early or NarrowRCC_Late<br><i>See Specifications Defining Renal Cell Carcinoma (RCC) Narrow Definition and Specifications Defining Combos for more information.</i> | <b>Broad RCC: BroadRCC</b><br><i>See Specifications Defining Combos for definition.</i>                                             |
| <b>Incident event washout period</b>                                         | None; using exclusion criteria instead                                                                                                                                                                                                           | None                                                                                                                                |
| <b>Care Setting</b>                                                          | Any                                                                                                                                                                                                                                              | Any                                                                                                                                 |
| <b>Principal Diagnosis Position</b>                                          | Any                                                                                                                                                                                                                                              | Any                                                                                                                                 |
| <b>Exclude evidence of days supply if event washout includes dispensings</b> | N/A                                                                                                                                                                                                                                              | N/A                                                                                                                                 |
| <b>Event de-duplication</b>                                                  | De-duplicates occurrences of the same event code and code type on the same day                                                                                                                                                                   | De-duplicates occurrences of the same event code and code type on the same day                                                      |
| <b>Forced supply to attach to dispensings</b>                                | N/A                                                                                                                                                                                                                                              | N/A                                                                                                                                 |

Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Propensity Score (PS) Model Parameters          |                                                                                                             |                                                                   |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| PS Model Label                                  | ps_1                                                                                                        | ps_2                                                              |
| Categorical Variables in PS Model               | See Specifications Defining Baseline Covariates                                                             | See Specifications Defining Baseline Covariates                   |
| Continuous Variables in PS Model                |                                                                                                             |                                                                   |
| Firth Logistic Intercept Correct (FLIC) Method  |                                                                                                             |                                                                   |
| High-dimensional Propensity Score               |                                                                                                             |                                                                   |
| Output Kaplan Meier Plots?                      |                                                                                                             |                                                                   |
| Weighting                                       |                                                                                                             |                                                                   |
| IP Weight                                       | Average treatment effect in the treated (ATT) * time-varying inverse-probability of censoring weight (IPCW) | Average treatment effect in the treated (ATT) * time-varying IPCW |
| Analysis Group Label                            | iptw_1pct_1                                                                                                 | iptw_1pct_2                                                       |
| Weight truncation                               | 1                                                                                                           | 1                                                                 |
| Subgroup Analyses                               |                                                                                                             |                                                                   |
| Comparison Identifier                           | SEX                                                                                                         | N/A (subgroup analyses conducted only for the primary analysis)   |
| Covariates used for Subgroup Analyses           | Sex                                                                                                         |                                                                   |
| Subgroup Categories                             | F, M                                                                                                        |                                                                   |
| FLIC Method                                     | N                                                                                                           |                                                                   |
| Re-estimate Propensity Score                    | Y                                                                                                           |                                                                   |
| Subgroup Matching Base Population Specification | Y                                                                                                           |                                                                   |
| Comparison Identifier                           | COVAR1                                                                                                      |                                                                   |
| Covariates used for Subgroup Analyses           | Age ≥65                                                                                                     |                                                                   |
| Subgroup Categories                             | <65, ≥65 years                                                                                              |                                                                   |
| FLIC Method                                     | N                                                                                                           |                                                                   |
| Re-estimate Propensity Score                    | Y                                                                                                           |                                                                   |
| Subgroup Matching Base Population Specification | Y                                                                                                           |                                                                   |
| Comparison Identifier                           | COVAR21                                                                                                     |                                                                   |
| Covariates used for Subgroup Analyses           | Obesity                                                                                                     |                                                                   |
| Subgroup Categories                             | Y, N (presence of obesity code)                                                                             |                                                                   |
| FLIC Method                                     | N                                                                                                           |                                                                   |
| Re-estimate Propensity Score                    | Y                                                                                                           |                                                                   |
| Subgroup Matching Base Population Specification | Y                                                                                                           |                                                                   |

Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

|                                                                                                                                                                     | SECONDARY                                                                                                                                                                     |                                                                                                                                                                                |                                                                                                                                                                               |                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                     | Sitagliptin vs. All SGLT-2 Inhibitors: Narrow RCC (1° outcome)                                                                                                                |                                                                                                                                                                                | Sitagliptin vs. All SGLT-2 Inhibitors: Broad RCC (2° outcome)                                                                                                                 |                                                                                                                                                                                |
| Group*                                                                                                                                                              | sglt_3                                                                                                                                                                        | sita_3                                                                                                                                                                         | sglt_4                                                                                                                                                                        | sita_4                                                                                                                                                                         |
| Drug/Exposure                                                                                                                                                       |                                                                                                                                                                               |                                                                                                                                                                                |                                                                                                                                                                               |                                                                                                                                                                                |
| <b>Index Exposure/Comparator</b><br><br><i>Note: For all exposures, programming will be used to assess &lt;180, ≥180 days exposure in 360 days since initiation</i> | Canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, bexagliflozin                                                                                                     | Sitagliptin                                                                                                                                                                    | Canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, bexagliflozin                                                                                                     | Sitagliptin                                                                                                                                                                    |
| <b>Cohort Definition</b>                                                                                                                                            | First valid exposure episodes during query period                                                                                                                             |                                                                                                                                                                                | First valid exposure episodes during query period                                                                                                                             |                                                                                                                                                                                |
| <b>Incidence Exposure Washout Period</b>                                                                                                                            | 0                                                                                                                                                                             |                                                                                                                                                                                | 0                                                                                                                                                                             |                                                                                                                                                                                |
| <b>Exclude evidence of days supply if exposure washout include dispensings</b>                                                                                      | No                                                                                                                                                                            |                                                                                                                                                                                | No                                                                                                                                                                            |                                                                                                                                                                                |
| <b>Stockpiling</b>                                                                                                                                                  | See Specifications Defining Stockpiling                                                                                                                                       |                                                                                                                                                                                | See Specifications Defining Stockpiling                                                                                                                                       |                                                                                                                                                                                |
| <b>Build Episodes on Point Exposure?</b>                                                                                                                            | Yes                                                                                                                                                                           |                                                                                                                                                                                | Yes                                                                                                                                                                           |                                                                                                                                                                                |
| <b>Create Baseline Table?</b>                                                                                                                                       | Yes                                                                                                                                                                           |                                                                                                                                                                                | Yes                                                                                                                                                                           |                                                                                                                                                                                |
| At Risk Time                                                                                                                                                        |                                                                                                                                                                               |                                                                                                                                                                                |                                                                                                                                                                               |                                                                                                                                                                                |
| <b>End At-Risk Period at Evidence of</b>                                                                                                                            | Death; DP end date; query end date; initiation of comparator drug class (DPP4i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence | Death; DP end date; query end date; initiation of comparator drug class (SGLT2i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence | Death; DP end date; query end date; initiation of comparator drug class (DPP4i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence | Death; DP end date; query end date; initiation of comparator drug class (SGLT2i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence |
| <b>HOI Blackout Period</b>                                                                                                                                          | .                                                                                                                                                                             |                                                                                                                                                                                | .                                                                                                                                                                             |                                                                                                                                                                                |
| <b>Risk window interval start</b>                                                                                                                                   | 1                                                                                                                                                                             |                                                                                                                                                                                | 1                                                                                                                                                                             |                                                                                                                                                                                |

Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Inclusion/Exclusion Criteria                                         |                                       |                                       |
|----------------------------------------------------------------------|---------------------------------------|---------------------------------------|
| Inclusion/Exclusion group                                            | T2DM (ICD-9 or 10 code)               | T2DM (ICD-9 or 10 code)               |
| Condition Indicator                                                  | Inclusion (CONDINCLUSION=1)           | Inclusion (CONDINCLUSION=1)           |
| Name of Include/Exclude Condition                                    | <i>diab_in; t2dm_inc</i>              | <i>diab_in; t2dm_inc</i>              |
| Evaluation Period Start & End                                        | [-365, -5]                            | [-365, -5]                            |
| Care Setting/PDX                                                     | Any care setting                      | Any care setting                      |
| Principal Diagnosis Position                                         | Any                                   | Any                                   |
| # of instances the criteria should be found in the eval. period      | 1                                     | 1                                     |
| AND                                                                  |                                       |                                       |
| Inclusion/Exclusion group                                            | Oral antidiabetic drug (at least one) | Oral antidiabetic drug (at least one) |
| Condition Indicator                                                  | Inclusion (CONDINCLUSION=1)           | Inclusion (CONDINCLUSION=1)           |
| Name of Include/Exclude Condition                                    | <i>diab_in; antidia_inc</i>           | <i>diab_in; antidia_inc</i>           |
| Evaluation Period Start & End                                        | [-365, -1]                            | [-365, -1]                            |
| Care Setting/PDX                                                     | Any care setting; PX & RX tables      | Any care setting; PX & RX tables      |
| Principal Diagnosis Position                                         | --                                    | --                                    |
| Exclude evidence of days supply if inclusion includes dispensings    | No                                    | No                                    |
| # of instances the criteria should be found in the evaluation period | 1                                     | 1                                     |
| Inclusion/Exclusion group                                            | T1DM (ICD-9 or 10 code)               | T1DM (ICD-9 or 10 code)               |
| Condition Indicator                                                  | Exclusion (CONDINCLUSION=0)           | Exclusion (CONDINCLUSION=0)           |
| Name of Include/Exclude Condition                                    | <i>t1dm_ex</i>                        | <i>t1dm_ex</i>                        |
| Evaluation Period Start & End                                        | [-365, -5]                            | [-365, -5]                            |
| Care Setting/PDX                                                     | Any care setting                      | Any care setting                      |
| Principal Diagnosis Position                                         | Any                                   | Any                                   |
| # of instances the criteria should be found in the eval. period      | 1                                     | 1                                     |



**Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

|                                                                          |                                                                               |                                                                                                 |                                                                               |                                                                                                 |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Inclusion/Exclusion group</b>                                         | Prior SGLT2i                      Prior SITA                                  |                                                                                                 | Prior SGLT2i                      Prior SITA                                  |                                                                                                 |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                   |                                                                                                 | Exclusion (CONDINCLUSION=0)                                                   |                                                                                                 |
| <b>Name of Include/Exclude Condition</b>                                 | <i>sgl_t_ex</i> <i>sita_ex</i>                                                |                                                                                                 | <i>sgl_t_ex</i> <i>sita_ex</i>                                                |                                                                                                 |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, -1]                                                                    |                                                                                                 | [-365, -1]                                                                    |                                                                                                 |
| <b>Care Setting/PDX</b>                                                  | Any care setting; PX & RX tables                                              |                                                                                                 | Any care setting; PX & RX tables                                              |                                                                                                 |
| <b>Principal Diagnosis Position</b>                                      | N/A                                                                           |                                                                                                 | N/A                                                                           |                                                                                                 |
| <b>Exclude evidence of days supply if exclusion includes dispensings</b> | No                                                                            |                                                                                                 | No                                                                            |                                                                                                 |
| <b># of instances criterion should be found in eval. period</b>          | 1                                                                             |                                                                                                 | 1                                                                             |                                                                                                 |
| <b>Inclusion/Exclusion group</b>                                         | <b>Other drugs:</b> DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a | <b>Other drugs:</b> SGLT-2i, non-SITA DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a | <b>Other drugs:</b> DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a | <b>Other drugs:</b> SGLT-2i, non-SITA DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                   |                                                                                                 | Exclusion (CONDINCLUSION=0)                                                   |                                                                                                 |
| <b>Name of Include/Exclude Condition</b>                                 | <i>other_nonsgl_t_ex</i> <i>other_nonsita_ex</i>                              |                                                                                                 | <i>other_nonsgl_t_ex</i> <i>other_nonsita_ex</i>                              |                                                                                                 |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, 0]                                                                     |                                                                                                 | [-365, 0]                                                                     |                                                                                                 |
| <b>Care Setting/PDX</b>                                                  | Any care setting; PX & RX tables                                              |                                                                                                 | Any care setting; PX & RX tables                                              |                                                                                                 |
| <b>Principal Diagnosis Position</b>                                      | N/A                                                                           |                                                                                                 | N/A                                                                           |                                                                                                 |
| <b>Exclude evidence of days supply if exclusion includes dispensings</b> | No                                                                            |                                                                                                 | No                                                                            |                                                                                                 |
| <b># of instances criterion should be found in eval. period</b>          | 1                                                                             |                                                                                                 | 1                                                                             |                                                                                                 |
| <b>Inclusion/Exclusion group</b>                                         | Chronic Kidney Disease (Stages III-V) or on dialysis                          |                                                                                                 | Chronic Kidney Disease (Stages III-V) or on dialysis                          |                                                                                                 |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                   |                                                                                                 | Exclusion (CONDINCLUSION=0)                                                   |                                                                                                 |
| <b>Name of Include/Exclude Condition</b>                                 | <i>ckd_ex</i>                                                                 |                                                                                                 | <i>ckd_ex</i>                                                                 |                                                                                                 |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, -1]                                                                    |                                                                                                 | [-365, -1]                                                                    |                                                                                                 |
| <b>Care Setting/PDX</b>                                                  | Any care setting, Dx and Px                                                   |                                                                                                 | Any care setting, Dx and Px                                                   |                                                                                                 |
| <b>Principal Diagnosis Position</b>                                      | Any                                                                           |                                                                                                 | Any                                                                           |                                                                                                 |
| <b># of instances the criteria should be found in the eval. period</b>   | 1                                                                             |                                                                                                 | 1                                                                             |                                                                                                 |

**Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

|                                                                              |                                                                                                                                                                  |                                                                                                                                                                  |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inclusion/Exclusion group</b>                                             | <p>Prior renal cell carcinoma:<br/> &gt;1 prior broad RCC code days OR <math>\geq 1</math> (history of kidney cancer or acquired absence of kidney) code day</p> | <p>Prior renal cell carcinoma:<br/> &gt;1 prior broad RCC code days OR <math>\geq 1</math> (history of kidney cancer or acquired absence of kidney) code day</p> |
| <b>Condition Indicator</b>                                                   | Exclusion (CONDINCLUSION=0)                                                                                                                                      | Exclusion (CONDINCLUSION=0)                                                                                                                                      |
| <b>Name of Include/Exclude Condition</b>                                     | <i>broad_rcc_ex, rcc_hx_ex</i>                                                                                                                                   | <i>broad_rcc_ex, rcc_hx_ex</i>                                                                                                                                   |
| <b>Evaluation Period Start &amp; End</b>                                     | [-ever, 0]                                                                                                                                                       | [-ever, 0]                                                                                                                                                       |
| <b>Care Setting/PDX</b>                                                      | Any care setting                                                                                                                                                 | Any care setting                                                                                                                                                 |
| <b>Principal Diagnosis Position</b>                                          | Any                                                                                                                                                              | Any                                                                                                                                                              |
| <b># of instances the criteria should be found in the evaluation period</b>  | 2 (prior broad RCC codes)<br>1 (history of kidney cancer or acquired absence of kidney)                                                                          | 2 (prior broad RCC codes)<br>1 (history of kidney cancer or acquired absence of kidney)                                                                          |
| <b>Event/Outcome</b>                                                         |                                                                                                                                                                  |                                                                                                                                                                  |
| <b>Outcome</b>                                                               | <p><b>Narrow RCC:</b><br/> Earliest occurrence of NarrowRCC_Early or NarrowRCC_Late</p>                                                                          | <p><b>Broad RCC: BroadRCC</b></p>                                                                                                                                |
| <b>Incident event washout period</b>                                         | None                                                                                                                                                             | None                                                                                                                                                             |
| <b>Care Setting</b>                                                          | Any                                                                                                                                                              | Any                                                                                                                                                              |
| <b>Principal Diagnosis Position</b>                                          | Any                                                                                                                                                              | Any                                                                                                                                                              |
| <b>Exclude evidence of days supply if event washout includes dispensings</b> | N/A                                                                                                                                                              | N/A                                                                                                                                                              |
| <b>Event de-duplication</b>                                                  | De-duplicates occurrences of the same event code and code type on the same day                                                                                   | De-duplicates occurrences of the same event code and code type on the same day                                                                                   |
| <b>Forced supply to attach to dispensings</b>                                | N/A                                                                                                                                                              | N/A                                                                                                                                                              |
| <b>Propensity Score (PS) Model Parameters</b>                                |                                                                                                                                                                  |                                                                                                                                                                  |
| <b>PS Model Label</b>                                                        | <i>ps_3</i>                                                                                                                                                      | <i>ps_4</i>                                                                                                                                                      |
| <b>Categorical Variables in PS Model</b>                                     | <i>See Specifications Defining Baseline Covariates</i>                                                                                                           | <i>See Specifications Defining Baseline Covariates</i>                                                                                                           |
| <b>Continuous Variables in PS Model</b>                                      |                                                                                                                                                                  |                                                                                                                                                                  |
| <b>Firth Logistic Intercept Correct (FLIC) Method</b>                        | No                                                                                                                                                               | No                                                                                                                                                               |
| <b>High-dimensional Propensity Score</b>                                     | No                                                                                                                                                               | No                                                                                                                                                               |
| <b>Output Kaplan Meier Plots?</b>                                            | Yes                                                                                                                                                              | Yes                                                                                                                                                              |

Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Weighting                                       |                                                                   |                                                                   |
|-------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|
| IP Weight                                       | Average treatment effect in the treated (ATT) * time-varying IPCW | Average treatment effect in the treated (ATT) * time-varying IPCW |
| Analysis Group Label                            | <i>iptw_1pct_3</i>                                                | <i>iptw_1pct_4</i>                                                |
| Weight truncation                               | 1                                                                 | 1                                                                 |
| Subgroup Analyses                               |                                                                   |                                                                   |
| Comparison Identifier                           | N/A (subgroup analyses conducted only for the primary analysis)   |                                                                   |
| Covariates used for Subgroup Analyses           |                                                                   |                                                                   |
| Subgroup Categories                             |                                                                   |                                                                   |
| Firth Logistic Intercept Correct (FLIC) Method  |                                                                   |                                                                   |
| Re-estimate Propensity Score                    |                                                                   |                                                                   |
| Subgroup Matching Base Population Specification |                                                                   |                                                                   |
| Comparison Identifier                           |                                                                   |                                                                   |
| Covariates used for Subgroup Analyses           |                                                                   |                                                                   |
| Subgroup Categories                             |                                                                   |                                                                   |
| FLIC Method                                     |                                                                   |                                                                   |
| Re-estimate Propensity Score                    |                                                                   |                                                                   |
| Subgroup Matching Base Population Specification |                                                                   |                                                                   |
| Comparison Identifier                           |                                                                   |                                                                   |
| Covariates used for Subgroup Analyses           |                                                                   |                                                                   |
| Subgroup Categories                             |                                                                   |                                                                   |
| FLIC Method                                     |                                                                   |                                                                   |
| Re-estimate Propensity Score                    |                                                                   |                                                                   |
| Subgroup Matching Base Population Specification |                                                                   |                                                                   |

Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

|                                                                                                                                                                     | SENSITIVITY: Censoring at non-RCC malignancy                                                                                                                                                           |                                                                                                                                                                                                         | SENSITIVITY: Censoring at GLP1-RA Use or Insulin                                                                                                                                                                                           |                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                     | Canagliflozin vs. Sitagliptin: Narrow RCC (1° outcome)                                                                                                                                                 |                                                                                                                                                                                                         | Canagliflozin vs. Sitagliptin: Narrow RCC (1° outcome)                                                                                                                                                                                     |                                                                                                                                                                                                                                             |
| Group*                                                                                                                                                              | cana_5                                                                                                                                                                                                 | sita_5                                                                                                                                                                                                  | cana_6                                                                                                                                                                                                                                     | sita_6                                                                                                                                                                                                                                      |
| Drug/Exposure                                                                                                                                                       |                                                                                                                                                                                                        |                                                                                                                                                                                                         |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                             |
| <b>Index Exposure/Comparator</b><br><br><i>Note: For all exposures, programming will be used to assess &lt;180, ≥180 days exposure in 360 days since initiation</i> | Canagliflozin                                                                                                                                                                                          | Sitagliptin                                                                                                                                                                                             | Canagliflozin                                                                                                                                                                                                                              | Sitagliptin                                                                                                                                                                                                                                 |
| <b>Cohort Definition</b>                                                                                                                                            | First valid exposure episodes during query period                                                                                                                                                      |                                                                                                                                                                                                         | First valid exposure episodes during query period                                                                                                                                                                                          |                                                                                                                                                                                                                                             |
| <b>Incidence Exposure Washout Period</b>                                                                                                                            | 0                                                                                                                                                                                                      |                                                                                                                                                                                                         | 0                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                             |
| <b>Exclude evidence of days supply if exposure washout include dispensings</b>                                                                                      | No                                                                                                                                                                                                     |                                                                                                                                                                                                         | No                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                             |
| <b>Stockpiling</b>                                                                                                                                                  | See Specifications Defining Stockpiling                                                                                                                                                                |                                                                                                                                                                                                         | See Specifications Defining Stockpiling                                                                                                                                                                                                    |                                                                                                                                                                                                                                             |
| <b>Build Episodes on Point Exposure?</b>                                                                                                                            | Yes                                                                                                                                                                                                    |                                                                                                                                                                                                         | Yes                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                             |
| <b>Create Baseline Table?</b>                                                                                                                                       | Yes                                                                                                                                                                                                    |                                                                                                                                                                                                         | Yes                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                             |
| At Risk Time                                                                                                                                                        |                                                                                                                                                                                                        |                                                                                                                                                                                                         |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                             |
| <b>End At-Risk Period at Evidence of</b>                                                                                                                            | Death; DP end date; query end date; initiation of comparator drug class (DPP4i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence; <b>other malignancy</b> | Death; DP end date; query end date; initiation of comparator drug class (SGLT2i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence; <b>other malignancy</b> | Death; DP end date; query end date; initiation of comparator drug class (DPP4i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence; <b>GLP1-RA, GIP/GLP1-RA use, insulin initiation (combo)</b> | Death; DP end date; query end date; initiation of comparator drug class (SGLT2i), SGLT2i/DPP4i combos; CKD (III, IV, or V); dialysis initiation; disenrollment; RCC occurrence; <b>GLP1-RA, GIP/GLP1-RA use, insulin initiation (combo)</b> |
| <b>HOI Blackout Period</b>                                                                                                                                          | .                                                                                                                                                                                                      |                                                                                                                                                                                                         | .                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                             |
| <b>Risk window interval start</b>                                                                                                                                   | 1                                                                                                                                                                                                      |                                                                                                                                                                                                         | 1                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                             |

**Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

| <b>Inclusion/Exclusion Criteria</b>                                         |                                       |                                       |
|-----------------------------------------------------------------------------|---------------------------------------|---------------------------------------|
| <b>Inclusion/Exclusion group</b>                                            | T2DM (ICD-9 or 10 code)               | T2DM (ICD-9 or 10 code)               |
| <b>Condition Indicator</b>                                                  | Inclusion (CONDINCLUSION=1)           | Inclusion (CONDINCLUSION=1)           |
| <b>Name of Include/Exclude Condition</b>                                    | <i>diab_in; t2dm_inc</i>              | <i>diab_in; t2dm_inc</i>              |
| <b>Evaluation Period Start &amp; End</b>                                    | [-365, -5]                            | [-365, -5]                            |
| <b>Care Setting/PDX</b>                                                     | Any care setting                      | Any care setting                      |
| <b>Principal Diagnosis Position</b>                                         | Any                                   | Any                                   |
| <b># of instances the criteria should be found in the eval. period</b>      | 1                                     | 1                                     |
|                                                                             | AND                                   | AND                                   |
| <b>Inclusion/Exclusion group</b>                                            | Oral antidiabetic drug (at least one) | Oral antidiabetic drug (at least one) |
| <b>Condition Indicator</b>                                                  | Inclusion (CONDINCLUSION=1)           | Inclusion (CONDINCLUSION=1)           |
| <b>Name of Include/Exclude Condition</b>                                    | <i>diab_in; antidia_inc</i>           | <i>diab_in; antidia_inc</i>           |
| <b>Evaluation Period Start &amp; End</b>                                    | [-365, -1]                            | [-365, -1]                            |
| <b>Care Setting/PDX</b>                                                     | Any care setting; PX & RX tables      | Any care setting; PX & RX tables      |
| <b>Principal Diagnosis Position</b>                                         | --                                    | --                                    |
| <b>Exclude evidence of days supply if inclusion includes dispensings</b>    | No (search for date or interval)      | No (search for date or interval)      |
| <b># of instances the criteria should be found in the evaluation period</b> | 1                                     | 1                                     |
| <b>Inclusion/Exclusion group</b>                                            | T1DM (ICD-9 or 10 code)               | T1DM (ICD-9 or 10 code)               |
| <b>Condition Indicator</b>                                                  | Exclusion (CONDINCLUSION=0)           | Exclusion (CONDINCLUSION=0)           |
| <b>Name of Include/Exclude Condition</b>                                    | <i>t1dm_ex</i>                        | <i>t1dm_ex</i>                        |
| <b>Evaluation Period Start &amp; End</b>                                    | [-365, -5]                            | [-365, -5]                            |
| <b>Care Setting/PDX</b>                                                     | Any care setting                      | Any care setting                      |
| <b>Principal Diagnosis Position</b>                                         | Any                                   | Any                                   |
| <b># of instances the criteria should be found in the eval. period</b>      | 1                                     | 1                                     |

**Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

|                                                                          |                                                                                                 |                         |                                                                                                 |                         |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------|-------------------------|
| <b>Inclusion/Exclusion group</b>                                         | Prior CANA                                                                                      | Prior SITA              | Prior CANA                                                                                      | Prior SITA              |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                                     |                         | Exclusion (CONDINCLUSION=0)                                                                     |                         |
| <b>Name of Include/Exclude Condition</b>                                 | <i>cana_ex</i>                                                                                  | <i>sita_ex</i>          | <i>cana_ex</i>                                                                                  | <i>sita_ex</i>          |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, -1]                                                                                      |                         | [-365, -1]                                                                                      |                         |
| <b>Care Setting/PDX</b>                                                  | Any care setting; PX & RX tables                                                                |                         | Any care setting; PX & RX tables                                                                |                         |
| <b>Principal Diagnosis Position</b>                                      | N/A                                                                                             |                         | N/A                                                                                             |                         |
| <b>Exclude evidence of days supply if exclusion includes dispensings</b> | No                                                                                              |                         | No                                                                                              |                         |
| <b># of instances criterion should be found in eval. period</b>          | 1                                                                                               |                         | 1                                                                                               |                         |
| <b>Inclusion/Exclusion group</b>                                         | <b>Other drugs:</b> non-CANA SGLT-2i, DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a |                         | <b>Other drugs:</b> non-CANA SGLT-2i, DPP-4i, SGLT2/DPP4 combo products, GLP-1a, and GIP/GLP-1a |                         |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                                     |                         | Exclusion (CONDINCLUSION=0)                                                                     |                         |
| <b>Name of Include/Exclude Condition</b>                                 | <i>other_noncana_ex</i>                                                                         | <i>other_nonsita_ex</i> | <i>other_noncana_ex</i>                                                                         | <i>other_nonsita_ex</i> |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, 0]                                                                                       |                         | [-365, 0]                                                                                       |                         |
| <b>Care Setting/PDX</b>                                                  | Any care setting; PX & RX tables                                                                |                         | Any care setting; PX & RX tables                                                                |                         |
| <b>Principal Diagnosis Position</b>                                      | N/A                                                                                             |                         | N/A                                                                                             |                         |
| <b>Exclude evidence of days supply if exclusion includes dispensings</b> | No                                                                                              |                         | No                                                                                              |                         |
| <b># of instances criterion should be found in eval. period</b>          | 1                                                                                               |                         | 1                                                                                               |                         |
| <b>Inclusion/Exclusion group</b>                                         | Chronic Kidney Disease (Stages III-V) or on dialysis                                            |                         | Chronic Kidney Disease (Stages III-V) or on dialysis                                            |                         |
| <b>Condition Indicator</b>                                               | Exclusion (CONDINCLUSION=0)                                                                     |                         | Exclusion (CONDINCLUSION=0)                                                                     |                         |
| <b>Name of Include/Exclude Condition</b>                                 | <i>ckd_ex</i>                                                                                   |                         | <i>ckd_ex</i>                                                                                   |                         |
| <b>Evaluation Period Start &amp; End</b>                                 | [-365, -1]                                                                                      |                         | [-365, -1]                                                                                      |                         |
| <b>Care Setting/PDX</b>                                                  | Any care setting, Dx and Px                                                                     |                         | Any care setting, Dx and Px                                                                     |                         |
| <b>Principal Diagnosis Position</b>                                      | Any                                                                                             |                         | Any                                                                                             |                         |
| <b># of instances the criteria should be found in the eval. period</b>   | 1                                                                                               |                         | 1                                                                                               |                         |

**Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

|                                                                              |                                                                                                                                     |                                                                                                                                     |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inclusion/Exclusion group</b>                                             | Prior renal cell carcinoma:<br>>1 prior broad RCC code days OR ≥1 (history of kidney cancer or acquired absence of kidney) code day | Prior renal cell carcinoma:<br>>1 prior broad RCC code days OR ≥1 (history of kidney cancer or acquired absence of kidney) code day |
| <b>Condition Indicator</b>                                                   | Exclusion (CONDINCLUSION=0)                                                                                                         | Exclusion (CONDINCLUSION=0)                                                                                                         |
| <b>Name of Include/Exclude Condition</b>                                     | <i>broad_rcc_ex, rcc_hx_ex</i>                                                                                                      | <i>broad_rcc_ex, rcc_hx_ex</i>                                                                                                      |
| <b>Evaluation Period Start &amp; End</b>                                     | [-ever, 0]                                                                                                                          | [-ever, 0]                                                                                                                          |
| <b>Care Setting/PDX</b>                                                      | Any care setting                                                                                                                    | Any care setting                                                                                                                    |
| <b>Principal Diagnosis Position</b>                                          | Any                                                                                                                                 | Any                                                                                                                                 |
| <b># of instances the criteria should be found in the evaluation period</b>  | 2 (prior broad RCC codes)<br>1 (history of kidney cancer or acquired absence of kidney)                                             | 2 (prior broad RCC codes)<br>1 (history of kidney cancer or acquired absence of kidney)                                             |
| <b>Event/Outcome</b>                                                         |                                                                                                                                     |                                                                                                                                     |
| <b>Outcome</b>                                                               | <b>Narrow RCC:</b><br>Earliest occurrence of NarrowRCC_Early or NarrowRCC_Late                                                      | <b>Narrow RCC:</b><br>Earliest occurrence of NarrowRCC_Early or NarrowRCC_Late                                                      |
| <b>Incident event washout period</b>                                         | None                                                                                                                                | None                                                                                                                                |
| <b>Care Setting</b>                                                          | Any                                                                                                                                 | Any                                                                                                                                 |
| <b>Principal Diagnosis Position</b>                                          | Any                                                                                                                                 | Any                                                                                                                                 |
| <b>Exclude evidence of days supply if event washout includes dispensings</b> | N/A                                                                                                                                 | N/A                                                                                                                                 |
| <b>Event de-duplication</b>                                                  | De-duplicates occurrences of the same event code and code type on the same day                                                      | De-duplicates occurrences of the same event code and code type on the same day                                                      |
| <b>Forced supply to attach to dispensings</b>                                | N/A                                                                                                                                 | N/A                                                                                                                                 |
| <b>Propensity Score (PS) Model Parameters</b>                                |                                                                                                                                     |                                                                                                                                     |
| <b>PS Model Label</b>                                                        | <i>ps_5</i>                                                                                                                         | <i>ps_6</i>                                                                                                                         |
| <b>Categorical Variables in PS Model</b>                                     | <i>See Specifications Defining Baseline Covariates</i>                                                                              | <i>See Specifications Defining Baseline Covariates</i>                                                                              |
| <b>Continuous Variables in PS Model</b>                                      |                                                                                                                                     |                                                                                                                                     |
| <b>Firth Logistic Intercept Correct (FLIC) Method</b>                        |                                                                                                                                     |                                                                                                                                     |
| <b>High-dimensional Propensity Score</b>                                     |                                                                                                                                     |                                                                                                                                     |
| <b>Output Kaplan Meier Plots?</b>                                            |                                                                                                                                     |                                                                                                                                     |
|                                                                              | No                                                                                                                                  | No                                                                                                                                  |
|                                                                              | No                                                                                                                                  | No                                                                                                                                  |
|                                                                              | Yes                                                                                                                                 | Yes                                                                                                                                 |



Appendix K. Specifications Defining Parameters for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Weighting                               |                                                                   |                                                                   |
|-----------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|
| IP Weight                               | Average treatment effect in the treated (ATT) * time-varying IPCW | Average treatment effect in the treated (ATT) * time-varying IPCW |
| Analysis Group Label                    | <i>iptw_1pct_5</i>                                                | <i>iptw_1pct_6</i>                                                |
| Weight truncation                       | 1                                                                 | 1                                                                 |
| Subgroup Analyses                       |                                                                   |                                                                   |
| Comparison Identifier                   | N/A (subgroup analyses conducted only for the primary analysis)   |                                                                   |
| Covariates used for Subgroup Analyses   |                                                                   |                                                                   |
| Subgroup Categories                     |                                                                   |                                                                   |
| Firth Logistic Intercept Correct (FLIC) |                                                                   |                                                                   |
| Method                                  |                                                                   |                                                                   |
| Re-estimate Propensity Score            |                                                                   |                                                                   |
| Subgroup Matching Base Population       |                                                                   |                                                                   |
| Specification                           |                                                                   |                                                                   |
| Comparison Identifier                   |                                                                   |                                                                   |
| Covariates used for Subgroup Analyses   |                                                                   |                                                                   |
| Subgroup Categories                     |                                                                   |                                                                   |
| FLIC Method                             |                                                                   |                                                                   |
| Re-estimate Propensity Score            |                                                                   |                                                                   |
| Subgroup Matching Base Population       |                                                                   |                                                                   |
| Specification                           |                                                                   |                                                                   |
| Comparison Identifier                   |                                                                   |                                                                   |
| Covariates used for Subgroup Analyses   |                                                                   |                                                                   |
| Subgroup Categories                     |                                                                   |                                                                   |
| FLIC Method                             |                                                                   |                                                                   |
| Re-estimate Propensity Score            |                                                                   |                                                                   |
| Subgroup Matching Base Population       |                                                                   |                                                                   |
| Specification                           |                                                                   |                                                                   |

International Classification of Diseases, Ninth Revision (ICD-9), International Classification of Diseases, Tenth Revision (ICD-10), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology (CPT) codes are provided by Optum360. National Drug Codes (NDC) are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

\* Note on the base cohort setup for these cohorts: cana\_1 is the base cohort for cana\_2. sita\_1 is the base cohort for sita\_2, sita\_3, sita\_4. sgl\_3 is the base cohort for sgl\_4. cana\_5, sita\_5, cana\_6, and sita\_6 are the base cohorts for themselves.

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number        | Covariate                                    | Description of Complex Covariates (CC) or Plus Programming          | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|-------------------------|----------------------------------------------|---------------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| DEMOGRAPHIC INFORMATION |                                              |                                                                     |                            |                  |                                                  |               |
| --                      | Age<br>[AGE]                                 | --                                                                  | Y                          | N                | --                                               | --            |
| --                      | Age <sup>2</sup>                             | --                                                                  | N                          | N                | --                                               | --            |
| --                      | Age <sup>3</sup>                             | --                                                                  | N                          | N                | --                                               | --            |
| --                      | Sex                                          | --                                                                  | Y                          | Y                | --                                               | --            |
| --                      | Race                                         | --                                                                  | Y                          | N                | --                                               | --            |
| --                      | Ethnicity                                    | --                                                                  | Y                          | N                | --                                               | --            |
| --                      | Collapsed index year for PS models<br>[YEAR] | Collapse index year ≥2019                                           | Y                          | N                | --                                               | --            |
| UTILIZATION             |                                              |                                                                     |                            |                  |                                                  |               |
| --                      | Any Care Setting Medical Utilization         | --                                                                  | Y                          | N                | --                                               | --            |
| --                      | N of AV visits<br>[AV_CAT]                   | (0-4, 5-10, 11-15, 16+; ref=<5)                                     | Y                          | N                | AV                                               | --            |
| --                      | N of ED visits<br>[ED_CAT]                   | (0, 1, 2+; ref=0)                                                   | Y                          | N                | ED                                               | --            |
| --                      | N of IP visits<br>[IP_CAT]                   | (0, 1, 2+; ref=0)                                                   | Y                          | N                | IP                                               | --            |
| --                      | Any Care Setting Drug Utilization            | --                                                                  | Y                          | N                | --                                               | --            |
| RISK SCORE              |                                              |                                                                     |                            |                  |                                                  |               |
| --                      | CCI<br>[CCI_CAT]                             | <1, 1, 2, ≥3; ref=<1                                                | Y                          | N                | --                                               | --            |
| --                      | aDCSI<br>[ADCSI_CAT]                         | 0, 1, 2, ≥3, ref=0                                                  | Y                          | N                | --                                               | --            |
| --                      | Frailty score<br>[FRAILITY_CAT]              | ≥0.25 (frail),<br><0.25 (non-frail); ref=<0.25)                     | Y                          | N                | --                                               | --            |
| BASELINE COVARIATES     |                                              |                                                                     |                            |                  |                                                  |               |
| 1                       | Age ≥65                                      | Collapse as follows:<br><65: 18-44, 45-54, 55-64<br>≥65: 65-74, 75+ | N                          | Y                | --                                               | --            |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number | Covariate                                                 | Description of Complex Covariates (CC) or Plus Programming                                 | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| 2                | Retinopathy_0                                             | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 3                | Nephropathy_0                                             | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 4                | Neuropathy_0                                              | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 5                | 1+ IPP/ED hypoglycemia visits                             | --                                                                                         | N                          | N                | IPP/ED                                           | DX            |
| 6                | 2+ IPP/ED hypoglycemia visits                             | --                                                                                         | Y                          | N                | IPP/ED                                           | DX            |
| 7                | No IPP/ED hypoglycemia visits                             | NOT COVAR 5<br>(1+ IPP/ED hypoglycemia visits)                                             | Y                          | N                | --                                               | CC            |
| 8                | Single IPP/ED hypoglycemia visit                          | COVAR 5 (1+ IPP/ED hypoglycemia visits) and NOT<br>COVAR 6 (2+ IPP/ED hypoglycemia visits) | Y                          | N                | --                                               | CC            |
| 9                | Hyperglycemia                                             | COVAR187 or COVAR191 or COVAR195                                                           | Y                          | N                | --                                               | CC            |
| 13               | Hypertension                                              | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 14               | Dyslipidemia                                              | --                                                                                         | Y                          | N                | Any                                              | TBD           |
| 15               | Coronary artery disease                                   | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 16               | Cerebrovascular disease                                   | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 17               | Peripheral vascular disease (PVD)                         | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 18               | Congestive heart failure                                  | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 19               | Chronic obstructive pulmonary disease (COPD)              | --                                                                                         | Y                          | N                | Any                                              | DX,PX         |
| 20               | Depression                                                | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 21               | Obesity                                                   | --                                                                                         | Y                          | Y                | Any                                              | DX            |
| 22               | Malignancy/Cancer<br>(excluding non-melanoma skin cancer) | --                                                                                         | Y                          | N                | Any                                              | DX, PX        |
| 23               | Hepatitis C Infection                                     | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 24               | History of Kidney Stones                                  | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 25               | Sickle Cell Disease                                       | --                                                                                         | Y                          | N                | Any                                              | DX            |
| 26               | Smoking                                                   | --                                                                                         | Y                          | N                | Any                                              | DX,PX, RX     |
| 27               | Alcohol use                                               | --                                                                                         | Y                          | N                | Any                                              | DX,PX         |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number                 | Covariate                                                                   | Description of Complex Covariates (CC) or Plus Programming                                                                                                                                                   | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|----------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| 28                               | Exclusion: Any history of renal cell carcinoma (RCC)                        | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | DX            |
| 29                               | Exclusion: 2+ Broad RCC Dx codes                                            | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | DX            |
| 30                               | 1 prior Broad RCC Dx code                                                   | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | DX            |
| TYPE 2 DIABETES THERAPIES        |                                                                             |                                                                                                                                                                                                              |                            |                  |                                                  |               |
| 31                               | Metformin                                                                   | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| 32                               | Sulfonylureas                                                               | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| 33                               | Thiazolidinediones (TZDs)                                                   | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| 34                               | Alpha glucosidase inhibitor                                                 | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| 35                               | Meglitinides                                                                | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| N/A (not in covariatecodes file) | N of oral antidiabetic drug classes (continuous) [NUMADA]                   | [NUMADA] COUNT OF COVARS 31-35<br>( <i>metformin, sulfonylurea, thiazolidinediones (TZDs), a-glucosidase inhibitor, meglitinides</i> )                                                                       | Y                          | N                | --                                               | --            |
| N/A (not in covariatecodes file) | N of oral antidiabetic drug classes (categorical: 1, 2, 3, 4+) [NUMADA_CAT] | [NUMADA_CAT] COUNT OF COVARS 31-35<br>( <i>metformin, sulfonylurea, thiazolidinediones (TZDs), a-glucosidase inhibitor, meglitinides</i> )                                                                   | Y                          | N                | --                                               | --            |
| 38                               | GLP1RAs (including GIP/GLP-1RAs)                                            | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX/PX         |
| 39                               | DPP4i                                                                       | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX/PX         |
| 40                               | SGLT2i                                                                      | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX/PX         |
| 41                               | SGLT2i-DPP4i combos                                                         | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX/PX         |
| 42                               | Long and intermediate acting insulin                                        | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| 43                               | Short/rapid-acting insulin                                                  | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| 44                               | Combination insulins                                                        | --                                                                                                                                                                                                           | Y                          | N                | Any                                              | RX, PX        |
| 183                              | Non-specific insulins                                                       | --                                                                                                                                                                                                           | N                          | N                | Any                                              | PX            |
| 45                               | Any insulin (for PS model)                                                  | COVAR 42 ( <i>long and intermediate acting insulin</i> )<br>OR COVAR 43 ( <i>short/rapid acting insulin</i> ) OR<br>COVAR 44 ( <i>combination insulins</i> ) OR COVAR 183<br>( <i>Nonspecific insulins</i> ) | Y                          | N                | -                                                | CC            |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number                 | Covariate                                      | Description of Complex Covariates (CC) or Plus Programming                                                                                              | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|----------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| OTHER MEDICATION USE             |                                                |                                                                                                                                                         |                            |                  |                                                  |               |
| 46                               | Angiotensin converting enzyme (ACE) inhibitors | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| 47                               | Angiotensin receptor blockers (ARBs)           | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| 48                               | Beta blockers                                  | --                                                                                                                                                      | Y                          | N                | Any                                              | RX,PX         |
| 49                               | Calcium channel blockers (CCB)                 | --                                                                                                                                                      | Y                          | N                | Any                                              | RX,PX         |
| 50                               | Statins                                        | --                                                                                                                                                      | Y                          | N                | Any                                              | RX,PX         |
| 51                               | Loop diuretics                                 | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| 52                               | Other diuretics                                | --                                                                                                                                                      | Y                          | N                | Any                                              | RX,PX         |
| 53                               | Any diuretic                                   | COVAR51 or COVAR52                                                                                                                                      | Y                          | N                | -                                                | CC            |
| 54                               | Aspirin, Acetaminophen, other NSAIDs           | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| N/A (not in covariatecodes file) | N of cardiovascular drug classes at baseline   | COUNT OF COVARS 46-50, 53, 54 [NUMCVRX_0]                                                                                                               | Y                          | N                | --                                               | --            |
| 56                               | Influenza Vaccine                              | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| 57                               | Pneumococcal Vaccine                           | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| POST-INDEX COVARIATES            |                                                | Note covariates measured during intervals 1-3 only for modeling of deviation after in intervals 2-4<br>Post-script indicates interval in which measured |                            |                  |                                                  |               |
| LAST-MEASURED-VALUE COVARIATES   |                                                |                                                                                                                                                         |                            |                  |                                                  |               |
| 58                               | Retinopathy_1                                  | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |
| 59                               | Nephropathy_1                                  | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |
| 60                               | Neuropathy_1                                   | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |
| 61                               | Frailty Indicators_1*                          | --                                                                                                                                                      | Y                          | N                | Any                                              | RX/PX         |
| 62                               | Pneumococcal Vaccine_1                         | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| 63                               | Retinopathy_2                                  | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |
| 64                               | Nephropathy_2                                  | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |
| 65                               | Neuropathy_2                                   | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |
| 66                               | Frailty_Indicators_2*                          | --                                                                                                                                                      | Y                          | N                | Any                                              | RX/PX         |
| 67                               | Pneumococcal Vaccine_2                         | --                                                                                                                                                      | Y                          | N                | Any                                              | RX, PX        |
| 68                               | Retinopathy_3                                  | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |
| 69                               | Nephropathy_3                                  | --                                                                                                                                                      | Y                          | N                | Any                                              | DX            |

**Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

| Covariate Number                          | Covariate                   | Description of Complex Covariates (CC) or Plus Programming | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|-------------------------------------------|-----------------------------|------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| 70                                        | Neuropathy_3                | --                                                         | Y                          | N                | Any                                              | DX            |
| 71                                        | Frailty Indicators_3*       | --                                                         | Y                          | N                | Any                                              | RX/PX         |
| 72                                        | Pneumococcal Vaccine_3      | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| Interval-specific NEW insulin or GLP1 use |                             |                                                            |                            |                  |                                                  |               |
| 73                                        | NEW GLP-1a or GIP/GLP-1ra_1 | --                                                         | Y                          | N                | Any                                              | RX/PX         |
| 74                                        | GLP-1a or GIP/GLP-1ra_2     | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 75                                        | NEW GLP-1a or GIP/GLP-1ra_2 | COVAR74 and NOT COVAR73                                    | Y                          | N                | --                                               | CC            |
| 76                                        | GLP-1a or GIP/GLP-1ra_3     | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 77                                        | NEW GLP-1a or GIP/GLP-1ra_3 | COVAR76 and NOT COVAR75                                    | Y                          | N                | --                                               | CC            |
| 78                                        | Any Insulins_1              | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 79                                        | NEW Insulin_1               | COVAR78 and NOT COVAR45 (baseline insulin)                 | Y                          | N                | --                                               | CC            |
| 80                                        | Any Insulins_2              | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 81                                        | NEW Insulin_2               | COVAR80 and NOT COVAR79                                    | Y                          | N                | --                                               | CC            |
| 82                                        | Any Insulins_3              | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 83                                        | NEW Insulin_3               | COVAR82 and NOT COVAR81                                    | Y                          | N                | --                                               | CC            |
| 84                                        | NEW insulin or GLP1ra_1     | COVAR73 or COVAR79                                         | Y                          | N                | --                                               | CC            |
| 85                                        | NEW insulin or GLP1ra_2     | COVAR75 or COVAR81                                         | Y                          | N                | --                                               | CC            |
| 86                                        | NEW insulin or GLP1ra_3     | COVAR77 or COVAR83                                         | Y                          | N                | --                                               | CC            |
| PAST 365 DAYS COVARIATES                  |                             |                                                            |                            |                  |                                                  |               |
| 87                                        | Influenza vaccine_1         | --                                                         | Y                          | N                | Any                                              | RX/PX         |
| 88                                        | Preventive healthcare_1**   | --                                                         | Y                          | N                | Any                                              | DX/RX/PX      |
| 89                                        | Influenza vaccine_2         | --                                                         | Y                          | N                | Any                                              | RX/PX         |
| 90                                        | Preventive healthcare_2**   | --                                                         | Y                          | N                | Any                                              | DX/RX/PX      |
| 91                                        | Influenza vaccine_3         | --                                                         | Y                          | N                | Any                                              | RX/PX         |
| 92                                        | Preventive healthcare_3**   | --                                                         | Y                          | N                | Any                                              | DX/RX/PX      |

**Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

| Covariate Number        | Covariate                 | Description of Complex Covariates (CC) or Plus Programming | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|-------------------------|---------------------------|------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| PAST 90 DAYS COVARIATES |                           |                                                            |                            |                  |                                                  |               |
| 93                      | Any HbA1c test_1          | --                                                         | Y                          | N                | Any                                              | PX            |
| 94                      | Any HbA1c test_2          | --                                                         | Y                          | N                | Any                                              | PX            |
| 95                      | Any HbA1c test_3          | --                                                         | Y                          | N                | Any                                              | PX            |
| 96                      | Any ED visits_1           | --                                                         | Y                          | N                | ED                                               | EN            |
| 97                      | Any ED visits_2           | --                                                         | Y                          | N                | ED                                               | EN            |
| 98                      | Any ED visits_3           | --                                                         | Y                          | N                | ED                                               | EN            |
| 99                      | 1+ AV visit_1             | --                                                         | N                          | N                | AV                                               | EN            |
| 100                     | >3 AV visits_1            | --                                                         | Y                          | N                | AV                                               | EN            |
| 101                     | No AV visits_1            | NOT COVAR99                                                | Y                          | N                | --                                               | CC            |
| 102                     | 1-3 AV visits_1           | COVAR99 and NOT COVAR100                                   | Y                          | N                | --                                               | CC            |
| 103                     | 1+ AV visit_2             | --                                                         | N                          | N                | AV                                               | EN            |
| 104                     | >3 AV visits_2            | --                                                         | Y                          | N                | AV                                               | EN            |
| 105                     | No AV visits_2            | NOT COVAR 103                                              | Y                          | N                | --                                               | CC            |
| 106                     | 1-3 AV visits_2           | COVAR 103 and NOT COVAR 104                                | Y                          | N                | --                                               | CC            |
| 107                     | 1+ AV visit_3             | --                                                         | N                          | N                | AV                                               | EN            |
| 108                     | >3 AV visits_3            | --                                                         | Y                          | N                | AV                                               | EN            |
| 109                     | No AV visits_3            | NOT COVAR 107                                              | Y                          | N                | --                                               | CC            |
| 110                     | 1-3 AV visits_3           | COVAR 107 and NOT COVAR 108                                | Y                          | N                | --                                               | CC            |
| 111                     | Any IP visits_1           | --                                                         | Y                          | N                | IP                                               | EN            |
| 112                     | Any IP visits_2           | --                                                         | Y                          | N                | IP                                               | EN            |
| 113                     | Any IP visits_3           | --                                                         | Y                          | N                | IP                                               | EN            |
| 114                     | Any IPP/ED hypoglycemia_1 | --                                                         | Y                          | N                | IPP/ED                                           | DX            |
| 115                     | Any IPP/ED hypoglycemia_2 | --                                                         | Y                          | N                | IPP/ED                                           | DX            |
| 116                     | Any IPP/ED hypoglycemia_3 | --                                                         | Y                          | N                | IPP/ED                                           | DX            |



# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number     | Covariate           | Description of Complex Covariates (CC) or Plus Programming | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|----------------------|---------------------|------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| 117                  | Any hyperglycemia_1 | COVAR188 or COVAR192 or COVAR196                           | Y                          | N                | --                                               | CC            |
| 118                  | Any hyperglycemia_2 | COVAR189 or COVAR193 or COVAR197                           | Y                          | N                | --                                               | CC            |
| 119                  | Any hyperglycemia_3 | COVAR190 or COVAR194 or COVAR198                           | Y                          | N                | --                                               | CC            |
| TIME-VARYING CV MEDS |                     |                                                            |                            |                  |                                                  |               |
| 120                  | ACEi_1              | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 121                  | ARB_1               | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 122                  | Beta blockers_1     | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 123                  | CCB_1               | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 124                  | Statins_1           | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 125                  | Any Diuretics_1     | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 126                  | Any NSAID_1         | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 127                  | ACEi_2              | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 128                  | ARB_2               | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 129                  | Beta blockers_2     | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 130                  | CCB_2               | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 131                  | Statins_2           | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 132                  | Any Diuretics_2     | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 133                  | Any NSAID_2         | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 134                  | ACEi_3              | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 135                  | ARB_3               | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 136                  | Beta blockers_3     | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 137                  | CCB_3               | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 138                  | Statins_3           | --                                                         | Y                          | N                | Any                                              | RX,PX         |
| 139                  | Any Diuretics_3     | --                                                         | Y                          | N                | Any                                              | RX, PX        |
| 140                  | Any NSAID_3         | --                                                         | Y                          | N                | Any                                              | RX, PX        |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number                                                                            | Covariate                                              | Description of Complex Covariates (CC) or Plus Programming  | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| N/A (not in covariatecodes file)                                                            | Number of CV medication classes_1                      | COUNT OF COVARS 120-126 [NUMCVRX_1]                         | Y                          | N                | --                                               | --            |
| N/A (not in covariatecodes file)                                                            | Number of CV medication classes_2                      | COUNT OF COVARS 127-133 [NUMCVRX_2]                         | Y                          | N                | --                                               | --            |
| N/A (not in covariatecodes file)                                                            | Number of CV medication classes_3                      | COUNT OF COVARS 134-140 [NUMCVRX_3]                         | Y                          | N                | --                                               | --            |
| N/A (not in covariatecodes file)                                                            | Increase in CV med classes from baseline to interval 1 | Indicator for CV med count_1 > CV med count_0 [INCR CVRX_1] | Y                          | N                | --                                               | --            |
| N/A (not in covariatecodes file)                                                            | Increase in CV med classes from interval 1 to 2        | Indicator for CV med count_2 > CV med count_1 [INCR CVRX_2] | Y                          | N                | --                                               | --            |
| N/A (not in covariatecodes file)                                                            | Increase in CV med classes from interval 2 to 3        | Indicator for CV med count_3 > CV med count_2 [INCR CVRX_3] | Y                          | N                | --                                               | --            |
| <b>IPCW diagnostic covariates potentially assessed at end of exposure assessment period</b> |                                                        |                                                             |                            |                  |                                                  |               |
| 147                                                                                         | 5+ AV visit_360                                        | --                                                          | N                          | N                | AV                                               | EN            |
| 148                                                                                         | 11+ AV visits_360                                      | --                                                          | N                          | N                | AV                                               | EN            |
| 149                                                                                         | 0-4 AV visits_360                                      | NOT COVAR 147                                               | N                          | N                | --                                               | CC            |
| 150                                                                                         | 5-10 AV visits_360                                     | COVAR 147 and NOT COVAR 148                                 | N                          | N                | --                                               | CC            |
| 151                                                                                         | 1+ ED visit_360                                        | --                                                          | N                          | N                | ED                                               | EN            |
| 152                                                                                         | 2+ ED visits_360                                       | --                                                          | N                          | N                | ED                                               | EN            |
| 153                                                                                         | 0 ED visits_360                                        | NOT COVAR 151                                               | N                          | N                | --                                               | CC            |
| 154                                                                                         | 1 ED visit_360                                         | COVAR 151 and NOT COVAR 152                                 | N                          | N                | --                                               | CC            |
| 155                                                                                         | 1+ IP visit_360                                        | --                                                          | N                          | N                | IP                                               | EN            |
| 156                                                                                         | 2+ IP visits_360                                       | --                                                          | N                          | N                | IP                                               | EN            |
| 157                                                                                         | 0 IP visits_360                                        | NOT COVAR 155                                               | N                          | N                | --                                               | CC            |
| 158                                                                                         | 1 IP visit_360                                         | COVAR 155 and NOT COVAR 156                                 | N                          | N                | --                                               | CC            |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number | Covariate                             | Description of Complex Covariates (CC) or Plus Programming | Include in Baseline Table? | Create Subgroup? | Care Setting and Diagnosis Position Requirements | Code Category |
|------------------|---------------------------------------|------------------------------------------------------------|----------------------------|------------------|--------------------------------------------------|---------------|
| 159              | 1+ IPP/ED hypoglycemia_360            | --                                                         | N                          | N                | IPP/ED                                           | DX            |
| 160              | 2+ IPP/ED hypoglycemia_360            | --                                                         | N                          | N                | IPP/ED                                           | DX            |
| 161              | No IPP/ED hypoglycemia_360            | NOT COVAR 159                                              | N                          | N                | --                                               | CC            |
| 162              | Single IPP/ED hypoglycemia_360        | COVAR159 and NOT COVAR 160                                 | N                          | N                | --                                               | CC            |
| 163              | 1+ IPP/ED hyperglycemia_360           | --                                                         | N                          | N                | IPP/ED                                           | DX            |
| 164              | 2+ IPP/ED hyperglycemia_360           | --                                                         | N                          | N                | IPP/ED                                           | DX            |
| 165              | No IPP/ED hyperglycemia_360           | NOT COVAR 163                                              | N                          | N                | --                                               | CC            |
| 166              | Single IPP/ED hyperglycemia_360       | COVAR 163 and NOT COVAR 164                                | N                          | N                | --                                               | CC            |
| 167              | Retinopathy_360                       | --                                                         | N                          | N                | Any                                              | DX            |
| 168              | Nephropathy_360                       | --                                                         | N                          | N                | Any                                              | DX            |
| 169              | Neuropathy_360                        | --                                                         | N                          | N                | Any                                              | DX            |
| 170              | Hypertension_360                      | --                                                         | N                          | N                | Any                                              | DX            |
| 171              | Dyslipidemia_360                      | --                                                         | N                          | N                | Any                                              | DX            |
| 172              | Coronary artery disease_360           | --                                                         | N                          | N                | Any                                              | DX            |
| 173              | Cerebrovascular disease_360           | --                                                         | N                          | N                | Any                                              | DX            |
| 174              | Peripheral vascular disease (PVD)_360 | --                                                         | N                          | N                | Any                                              | DX            |
| 175              | Congestive heart failure_360          | --                                                         | N                          | N                | Any                                              | DX            |
| 176              | Obesity_360                           | --                                                         | N                          | Y                | Any                                              | DX            |
| 177              | Any HbA1c test_360                    | --                                                         | N                          | N                | Any                                              | PX            |
| 178              | NEW GLP-1a or GIP/GLP-1ra_360         | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 179              | Any insulin_360                       | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 180              | New insulin_360                       | COVAR179 and NOT COVAR45 (baseline insulin)                | N                          | N                | --                                               | CC            |
| 181              | Frailty Indicators_360*               | --                                                         | N                          | N                | Any                                              | RX/PX         |
| 182              | Preventive healthcare_360**           | --                                                         | N                          | N                | Any                                              | DX/RX/PX      |
| 184              | Post-index GLP1ra initiation          | --                                                         | Y                          | N                | Any                                              | RX/PX         |

**Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

| <b>Covariate Number</b> | <b>Covariate</b>                | <b>Description of Complex Covariates (CC) or Plus Programming</b> | <b>Include in Baseline Table?</b> | <b>Create Subgroup?</b> | <b>Care Setting and Diagnosis Position Requirements</b> | <b>Code Category</b> |
|-------------------------|---------------------------------|-------------------------------------------------------------------|-----------------------------------|-------------------------|---------------------------------------------------------|----------------------|
| 185                     | Post-index insulin use          | --                                                                | N                                 | N                       | Any                                                     | RX/PX                |
| 186                     | Post-index insulin initiation   | COVAR185 and NOT<br>COVAR45 (baseline insulin)                    | Y                                 | N                       | --                                                      | CC                   |
| 187                     | Fasting hyperglycemia lab       | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 188                     | Fasting hyperglycemia lab_1     | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 189                     | Fasting hyperglycemia lab_2     | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 190                     | Fasting hyperglycemia lab_3     | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 191                     | Non-fasting hyperglycemia lab   | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 192                     | Non-fasting hyperglycemia lab_1 | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 193                     | Non-fasting hyperglycemia lab_2 | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 194                     | Non-fasting hyperglycemia lab_3 | --                                                                | N                                 | N                       | Any                                                     | LB                   |
| 195                     | IPP/ED hyperglycemia            | --                                                                | N                                 | N                       | IPP/ED                                                  | DX                   |
| 196                     | IPP/ED hyperglycemia_1          | --                                                                | N                                 | N                       | IPP/ED                                                  | DX                   |
| 197                     | IPP/ED hyperglycemia_2          | --                                                                | N                                 | N                       | IPP/ED                                                  | DX                   |
| 198                     | IPP/ED hyperglycemia_3          | --                                                                | N                                 | N                       | IPP/ED                                                  | DX                   |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number        | Covariate                                 | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model           | IPCW Model           |
|-------------------------|-------------------------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|----------------------|----------------------|
| DEMOGRAPHIC INFORMATION |                                           |                                   |                                 |                                                                   |                                        |                                                               |           |                      |                      |
| --                      | Age [AGE]                                 | 0                                 | 0                               | --                                                                | --                                     | --                                                            | Num.      | Y                    | Y                    |
| --                      | Age <sup>2</sup>                          | --                                | --                              | --                                                                | --                                     | --                                                            | Num.      | Y                    | Y                    |
| --                      | Age <sup>3</sup>                          | --                                | --                              | --                                                                | --                                     | --                                                            | Num.      | Y                    | Y                    |
| --                      | Sex                                       | 0                                 | 0                               | --                                                                | --                                     | --                                                            | Cat.      | Y                    | Y                    |
| --                      | Race                                      | 0                                 | 0                               | --                                                                | --                                     | --                                                            | Cat.      | N                    | N                    |
| --                      | Ethnicity                                 | 0                                 | 0                               | --                                                                | --                                     | --                                                            | Cat.      | N                    | N                    |
| --                      | Collapsed index year for PS models [YEAR] | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | Y [Class (ref=2013)] | Y [Class (ref=2013)] |
| UTILIZATION             |                                           |                                   |                                 |                                                                   |                                        |                                                               |           |                      |                      |
| --                      | Any Care Setting Medical Utilization      | -365                              | -1                              | --                                                                | --                                     | --                                                            | Num.      | N                    | N                    |
| --                      | N of AV visits [AV_CAT]                   | -365                              | -1                              | --                                                                | --                                     | --                                                            | Cat.      | Y [Class (ref=<5)]   | Y [Class (ref=<5)]   |
| --                      | N of ED visits [ED_CAT]                   | -365                              | -1                              | --                                                                | --                                     | --                                                            | Cat.      | Y [Class (ref=0)]    | Y [Class (ref=0)]    |
| --                      | N of IP visits [IP_CAT]                   | -365                              | -1                              | --                                                                | --                                     | --                                                            | Cat.      | Y [Class (ref=0)]    | Y [Class (ref=0)]    |
| --                      | Any Care Setting Drug Utilization         | -365                              | -1                              | --                                                                | --                                     | --                                                            | Num.      | N                    | N                    |
| RISK SCORE              |                                           |                                   |                                 |                                                                   |                                        |                                                               |           |                      |                      |
| --                      | CCI [CCI_CAT]                             | -365                              | -1                              | --                                                                | --                                     | --                                                            | Cat.      | Y [Class (ref<1)]    | Y [Class (ref<1)]    |
| --                      | aDCSI [ADCSI_CAT]                         | -365                              | -1                              | --                                                                | --                                     | --                                                            | Cat.      | Y [Class (ref=0)]    | Y [Class (ref=0)]    |
| --                      | Frailty score [FRAILITY_CAT]              | -365                              | -1                              | --                                                                | --                                     | --                                                            | Cat.      | Y [Class (ref<0.25)] | Y [Class (ref<0.25)] |

Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number    | Covariate                                              | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|---------------------|--------------------------------------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| BASELINE COVARIATES |                                                        |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 1                   | Age ≥65                                                | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 2                   | Retinopathy_0                                          | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 3                   | Nephropathy_0                                          | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 4                   | Neuropathy_0                                           | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 5                   | 1+ IPP/ED hypoglycemia visits                          | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 6                   | 2+ IPP/ED hypoglycemia visits                          | -365                              | -1                              | --                                                                | --                                     | 2                                                             | Cat.      | N          | N          |
| 7                   | No IPP/ED hypoglycemia visits                          | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 8                   | Single IPP/ED hypoglycemia visit                       | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 9                   | Hyperglycemia                                          | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | Y          | Y          |
| 13                  | Hypertension                                           | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 14                  | Dyslipidemia                                           | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 15                  | Coronary artery disease                                | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 16                  | Cerebrovascular disease                                | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 17                  | Peripheral vascular disease (PVD)                      | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 18                  | Congestive heart failure                               | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 19                  | Chronic obstructive pulmonary disease (COPD)           | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 20                  | Depression                                             | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 21                  | Obesity                                                | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 22                  | Malignancy/Cancer (excluding non-melanoma skin cancer) | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |

**Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

| Covariate Number                 | Covariate                                                                   | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|----------------------------------|-----------------------------------------------------------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| 23                               | Hepatitis C Infection                                                       | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 24                               | History of Kidney Stones                                                    | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 25                               | Sickle Cell Disease                                                         | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 26                               | Smoking                                                                     | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 27                               | Alcohol use                                                                 | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 28                               | Exclusion: Any History of RCC                                               | -ever                             | 0                               | --                                                                |                                        | 1                                                             | Cat.      | N          | N          |
| 29                               | Exclusion: 2+ Broad RCC Dx codes                                            | -ever                             | 0                               | --                                                                |                                        | 2                                                             | Cat.      | N          | N          |
| 30                               | 1 prior Broad RCC Dx code                                                   | -ever                             | 0                               | --                                                                |                                        | 1                                                             | Cat.      | N          | N          |
| TYPE 2 DIABETES THERAPIES        |                                                                             |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 31                               | Metformin                                                                   | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 32                               | Sulfonylureas                                                               | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 33                               | Thiazolidinediones (TZDs)                                                   | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 34                               | Alpha glucosidase inhibitor                                                 | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 35                               | Meglitinides                                                                | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| N/A (not in covariatecodes file) | N of oral antidiabetic drug classes (continuous) [NUMADA]                   | --                                | --                              | --                                                                | --                                     | --                                                            | Num.      | N          | N          |
| N/A (not in covariatecodes file) | N of oral antidiabetic drug classes (categorical: 1, 2, 3, 4+) [NUMADA_CAT] | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 38                               | GLP1RAs (including GIP/GLP-1RAs)                                            | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 39                               | DPP4i                                                                       | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 40                               | SGLT2i                                                                      | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 41                               | SGLT2i-DPP4i combos                                                         | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |



**Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

| Covariate Number                 | Covariate                                      | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|----------------------------------|------------------------------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| 42                               | Long and intermediate acting insulin           | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 43                               | Short/rapid-acting insulin                     | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 44                               | Combination insulins                           | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 183                              | Non-specific insulins                          | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 45                               | Any insulin (for PS model)                     | -                                 | -                               | --                                                                | --                                     | --                                                            | Cat.      | Y          | Y          |
| OTHER MEDICATION USE             |                                                |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 46                               | Angiotensin converting enzyme (ACE) inhibitors | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 47                               | Angiotensin receptor blockers (ARBs)           | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 48                               | Beta blockers                                  | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 49                               | Calcium channel blockers (CCB)                 | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 50                               | Statins                                        | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 51                               | Loop diuretics                                 | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 52                               | Other diuretics                                | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 53                               | Any diuretic                                   | -                                 | -                               | --                                                                | --                                     | --                                                            | Cat.      | Y          | Y          |
| 54                               | Aspirin, Acetaminophen, other NSAIDs           | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| N/A (not in covariatecodes file) | N of cardiovascular drug classes at baseline   | --                                | --                              | --                                                                | --                                     | --                                                            | Num.      | N          | N          |
| 56                               | Influenza Vaccine                              | -365                              | -1                              | Y                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |
| 57                               | Pneumococcal Vaccine                           | -ever                             | -1                              | Y                                                                 | --                                     | 1                                                             | Cat.      | Y          | Y          |

Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number                          | Covariate                   | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|-------------------------------------------|-----------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| POST-INDEX COVARIATES                     |                             |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| LAST-MEASURED-VALUE COVARIATES            |                             |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 58                                        | Retinopathy_1               | -365                              | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 59                                        | Nephropathy_1               | -365                              | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 60                                        | Neuropathy_1                | -365                              | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 61                                        | Frailty Indicators_1*       | -365                              | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 62                                        | Pneumococcal Vaccine_1      | -ever                             | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 63                                        | Retinopathy_2               | -365                              | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 64                                        | Nephropathy_2               | -365                              | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 65                                        | Neuropathy_2                | -365                              | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 66                                        | Frailty Indicators_2*       | -365                              | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 67                                        | Pneumococcal Vaccine_2      | -ever                             | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 68                                        | Retinopathy_3               | -365                              | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 69                                        | Nephropathy_3               | -365                              | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 70                                        | Neuropathy_3                | -365                              | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 71                                        | Frailty Indicators_3*       | -365                              | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 72                                        | Pneumococcal Vaccine_3      | -ever                             | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| Interval-specific NEW insulin or GLP1 use |                             |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 73                                        | NEW GLP-1a or GIP/GLP-1ra_1 | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 74                                        | GLP-1a or GIP/GLP-1ra_2     | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 75                                        | NEW GLP-1a or GIP/GLP-1ra_2 | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 76                                        | GLP-1a or GIP/GLP-1ra_3     | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 77                                        | NEW GLP-1a or GIP/GLP-1ra_3 | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |

Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number         | Covariate                 | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|--------------------------|---------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| 78                       | Any Insulins_1            | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 79                       | NEW Insulin_1             | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 80                       | Any Insulins_2            | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 81                       | NEW Insulin_2             | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 82                       | Any Insulins_3            | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 83                       | NEW Insulin_3             | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 84                       | NEW insulin or GLP1ra_1   | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 85                       | NEW insulin or GLP1ra_2   | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 86                       | NEW insulin or GLP1ra_3   | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| PAST 365 DAYS COVARIATES |                           |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 87                       | Influenza vaccine_1       | -276                              | 89                              | Y                                                                 | Y                                      | 1                                                             | Cat.      | N          | Y          |
| 88                       | Preventive healthcare_1** | -276                              | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 89                       | Influenza vaccine_2       | -186                              | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 90                       | Preventive healthcare_2** | -186                              | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 91                       | Influenza vaccine_3       | -96                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| 92                       | Preventive healthcare_3** | -96                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | Y          |
| PAST 90 DAYS COVARIATES  |                           |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 93                       | Any HbA1c test_1          | 0                                 | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 94                       | Any HbA1c test_2          | 90                                | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 95                       | Any HbA1c test_3          | 180                               | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 96                       | Any ED visits_1           | 0                                 | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 97                       | Any ED visits_2           | 90                                | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 98                       | Any ED visits_3           | 180                               | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number | Covariate                 | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|------------------|---------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| 99               | 1+ AV visit_1             | 0                                 | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 100              | >3 AV visits_1            | 0                                 | 89                              | --                                                                | --                                     | 4                                                             | Cat.      | N          | Y          |
| 101              | No AV visits_1            | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N (ref)    |
| 102              | 1-3 AV visits_1           | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 103              | 1+ AV visit_2             | 90                                | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 104              | >3 AV visits_2            | 90                                | 179                             | --                                                                | --                                     | 4                                                             | Cat.      | N          | Y          |
| 105              | No AV visits_2            | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N (ref)    |
| 106              | 1-3 AV visits_2           | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 107              | 1+ AV visit_3             | 180                               | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 108              | >3 AV visits_3            | 180                               | 269                             | --                                                                | --                                     | 4                                                             | Cat.      | N          | Y          |
| 109              | No AV visits_3            | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N (ref)    |
| 110              | 1-3 AV visits_3           | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 111              | Any IP visits_1           | 0                                 | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 112              | Any IP visits_2           | 90                                | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 113              | Any IP visits_3           | 180                               | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | Y          |
| 114              | Any IPP/ED hypoglycemia_1 | 0                                 | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 115              | Any IPP/ED hypoglycemia_2 | 90                                | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 116              | Any IPP/ED hypoglycemia_3 | 180                               | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 117              | Any hyperglycemia_1       | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 118              | Any hyperglycemia_2       | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| 119              | Any hyperglycemia_3       | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |

Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number     | Covariate       | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|----------------------|-----------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| TIME-VARYING CV MEDS |                 |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 120                  | ACEi_1          | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 121                  | ARB_1           | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 122                  | Beta blockers_1 | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 123                  | CCB_1           | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 124                  | Statins_1       | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 125                  | Any Diuretics_1 | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 126                  | Any NSAID_1     | 0                                 | 89                              | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 127                  | ACEi_2          | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 128                  | ARB_2           | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 129                  | Beta blockers_2 | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 130                  | CCB_2           | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 131                  | Statins_2       | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 132                  | Any Diuretics_2 | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 133                  | Any NSAID_2     | 90                                | 179                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 134                  | ACEi_3          | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 135                  | ARB_3           | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 136                  | Beta blockers_3 | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 137                  | CCB_3           | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 138                  | Statins_3       | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 139                  | Any Diuretics_3 | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 140                  | Any NSAID_3     | 180                               | 269                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number                                                                            | Covariate                                              | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| N/A (not in covariatecodes file)                                                            | Number of CV medication classes_1                      | --                                | --                              | --                                                                | --                                     | --                                                            | Num.      | N          | N          |
| N/A (not in covariatecodes file)                                                            | Number of CV medication classes_2                      | --                                | --                              | --                                                                | --                                     | --                                                            | Num.      | N          | N          |
| N/A (not in covariatecodes file)                                                            | Number of CV medication classes_3                      | --                                | --                              | --                                                                | --                                     | --                                                            | Num.      | N          | N          |
| N/A (not in covariatecodes file)                                                            | Increase in CV med classes from baseline to interval 1 | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| N/A (not in covariatecodes file)                                                            | Increase in CV med classes from interval 1 to 2        | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| N/A (not in covariatecodes file)                                                            | Increase in CV med classes from interval 2 to 3        | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | Y          |
| <b>IPCW diagnostic covariates potentially assessed at end of exposure assessment period</b> |                                                        |                                   |                                 |                                                                   |                                        |                                                               |           |            |            |
| 147                                                                                         | 5+ AV visit_360                                        | 1                                 | 359                             | --                                                                | --                                     | 5                                                             | Cat.      | N          | N          |
| 148                                                                                         | 11+ AV visits_360                                      | 1                                 | 359                             | --                                                                | --                                     | 11                                                            | Cat.      | N          | N          |
| 149                                                                                         | 0-4 AV visits_360                                      | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 150                                                                                         | 5-10 AV visits_360                                     | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 151                                                                                         | 1+ ED visit_360                                        | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 152                                                                                         | 2+ ED visits_360                                       | 1                                 | 359                             | --                                                                | --                                     | 2                                                             | Cat.      | N          | N          |
| 153                                                                                         | 0 ED visits_360                                        | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 154                                                                                         | 1 ED visit_360                                         | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |

**Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115**

| Covariate Number | Covariate                             | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|------------------|---------------------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| 155              | 1+ IP visit_360                       | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 156              | 2+ IP visits_360                      | 1                                 | 359                             | --                                                                | --                                     | 2                                                             | Cat.      | N          | N          |
| 157              | 0 IP visits_360                       | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 158              | 1 IP visit_360                        | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 159              | 1+ IPP/ED hypoglycemia_360            | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 160              | 2+ IPP/ED hypoglycemia_360            | 1                                 | 359                             | --                                                                | --                                     | 2                                                             | Cat.      | N          | N          |
| 161              | No IPP/ED hypoglycemia_360            | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 162              | Single IPP/ED hypoglycemia_360        | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 163              | 1+ IPP/ED hyperglycemia_360           | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 164              | 2+ IPP/ED hyperglycemia_360           | 1                                 | 359                             | --                                                                | --                                     | 2                                                             | Cat.      | N          | N          |
| 165              | No IPP/ED hyperglycemia_360           | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 166              | Single IPP/ED hyperglycemia_360       | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 167              | Retinopathy_360                       | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 168              | Nephropathy_360                       | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 169              | Neuropathy_360                        | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 170              | Hypertension_360                      | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 171              | Dyslipidemia_360                      | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 172              | Coronary artery disease_360           | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 173              | Cerebrovascular disease_360           | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 174              | Peripheral vascular disease (PVD)_360 | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 175              | Congestive heart failure_360          | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 176              | Obesity_360                           | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 177              | Any HbA1c test_360                    | 1                                 | 359                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 178              | NEW GLP-1a or GIP/GLP-1ra_360         | 1                                 | 359                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |



Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number | Covariate                       | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|------------------|---------------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| 179              | Any insulin_360                 | 1                                 | 359                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 180              | New insulin_360                 | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 181              | Frailty Indicators_360*         | 1                                 | 359                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 182              | Preventive healthcare_360**     | 1                                 | 359                             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 184              | Post-index GLP1ra initiation    | 0                                 | <b>FOLLOWUPTIME</b>             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 185              | Post-index insulin use          | 0                                 | <b>FOLLOWUPTIME</b>             | Y                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 186              | Post-index insulin initiation   | --                                | --                              | --                                                                | --                                     | --                                                            | Cat.      | N          | N          |
| 187              | Fasting hyperglycemia lab       | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 188              | Fasting hyperglycemia lab_1     | 0                                 | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 189              | Fasting hyperglycemia lab_2     | 90                                | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 190              | Fasting hyperglycemia lab_3     | 180                               | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 191              | Non-fasting hyperglycemia lab   | -365                              | -1                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 192              | Non-fasting hyperglycemia lab_1 | 0                                 | 89                              | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 193              | Non-fasting hyperglycemia lab_2 | 90                                | 179                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |
| 194              | Non-fasting hyperglycemia lab_3 | 180                               | 269                             | --                                                                | --                                     | 1                                                             | Cat.      | N          | N          |

# Appendix K.1. Specifications Defining Baseline Covariates for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Covariate Number | Covariate              | Covariate Evaluation Period Start | Covariate Evaluation Period End | Exclude Evidence of Days Supply if Covariate Includes Dispensings | Forced Supply to Attach to Dispensings | Number of Instances Covariate Should Be Found in Eval. Period | Var. Type | IPTW Model | IPCW Model |
|------------------|------------------------|-----------------------------------|---------------------------------|-------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|-----------|------------|------------|
| 195              | IPP/ED hyperglycemia   | -365                              | -1                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 196              | IPP/ED hyperglycemia_1 | 0                                 | 89                              | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 197              | IPP/ED hyperglycemia_2 | 90                                | 179                             | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |
| 198              | IPP/ED hyperglycemia_3 | 180                               | 269                             | N                                                                 | --                                     | 1                                                             | Cat.      | N          | N          |

\* Frailty indicators include: anti-dementia drugs, loop diuretics, digoxin, and wheelchair or home hospital bed claims. Frailty score is also assessed at baseline and included in all models as a binary indicator.

\*\* Preventive healthcare includes: cancer screening (colon, breast, prostate, cervical), bone mineral density screening, eye exams, anti-glaucoma drug use, lipid panel tests

**Abbreviations:** PS: propensity score; ED: emergency department encounters; AV: ambulatory visits; IP: inpatient hospital stays; IPP: inpatient hospital stays, principal diagnoses; IPTW: inverse probability of treatment weighting; IPCW: inverse probability of censoring weighting; CCI: combined comorbidity index; aDCSI: Adapted Diabetes Complication Severity Index; GLP1RA: glucagon-like peptide-1 receptor agonist; GIP/GLP1RA: glucose-dependent insulinotropic polypeptide / glucagon-like peptide-1 receptor agonist; HbA1c: hemoglobin A1c; DPP4i: dipeptidyl peptidase-4 inhibitor; SGLT2i: sodium-glucose cotransporter-2 inhibitor; NSAID: non-steroidal anti-inflammatory drug

## Appendix K.2. Specifications Defining Risk Scores, Utilization, and Stockpiling for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

| Risk Score                                 |                         |                       |                                     |                            |                         |                         |                  |
|--------------------------------------------|-------------------------|-----------------------|-------------------------------------|----------------------------|-------------------------|-------------------------|------------------|
| Risk Score                                 | Evaluation Period Start | Evaluation Period End | Risk Score Categories               | Include in Baseline Table? | Include in IPTW models? | Include in IPCW models? | Create Subgroup? |
| CCI (categorical) [CCI_CAT]                | -365                    | -1                    | <1, 1, 2, ≥3                        | Yes                        | Yes (ref=<1)            | Yes (ref=<1)            | No               |
| CCI (continuous)                           | -365                    | -1                    | --                                  | Yes                        | No                      | No                      | No               |
| aDCSI (categorical) [ADCSI_CAT]            | -365                    | -1                    | 0, 1, 2, ≥3                         | Yes                        | Yes (ref=0)             | Yes (ref=0)             | No               |
| aDCSI (continuous)                         | -365                    | -1                    | --                                  | Yes                        | No                      | No                      | No               |
| Frailty score (categorical) [FRAILITY_CAT] | -365                    | -1                    | ≥0.25 (frail),<br><0.25 (non-frail) | Yes                        | Yes<br>(ref=<0.25)      | Yes (ref=<0.25)         | No               |
| Frailty (continuous)                       | -365                    | -1                    | --                                  | Yes                        | No                      | No                      | No               |

Appendix K.2. Specifications Defining Risk Scores, Utilization, and Stockpiling for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

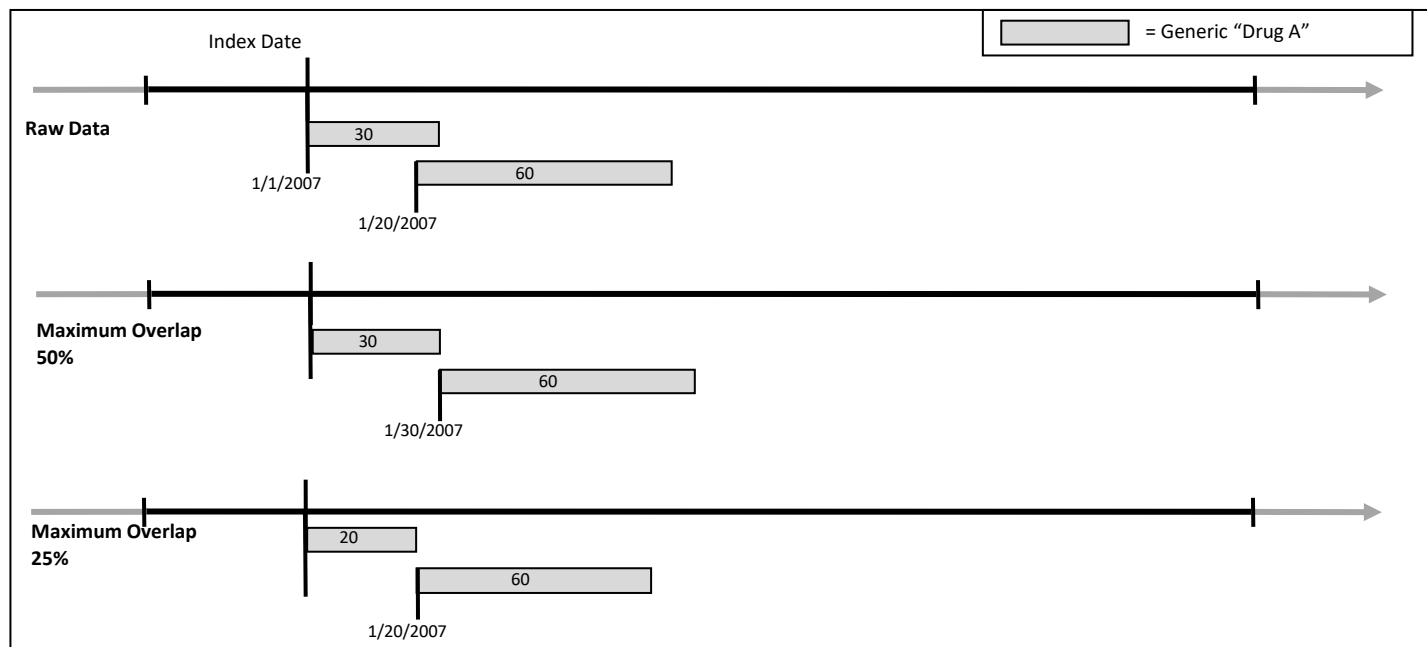
| Utilization                                 |                                           |                                                 |                                          |                                        |                          |                            |                         |                         |                  |
|---------------------------------------------|-------------------------------------------|-------------------------------------------------|------------------------------------------|----------------------------------------|--------------------------|----------------------------|-------------------------|-------------------------|------------------|
| Medical Utilization Evaluation Period Start | Medical Utilization Evaluation Period End | Medical Visit Care Settings                     | Drug Utilization Evaluation Period Start | Drug Utilization Evaluation Period End | Drug Visit Care Settings | Include in Baseline Table? | Include in IPTW models? | Include in IPCW models? | Create Subgroup? |
| -365                                        | -1                                        | IS, ED, AV, IP, OA                              | --                                       | --                                     | --                       | Y                          | N                       | N                       | N                |
| -365                                        | -1                                        | N of AV visits (0-4, 5-10, 11-15, 16+) [AV_CAT] | --                                       | --                                     | --                       | Y                          | Y (ref = <5)            | Y (ref = <5)            | N                |
| -365                                        | -1                                        | N of ED visits (0, 1, 2+) [ED_CAT]              | --                                       | --                                     | --                       | Y                          | Y (ref = 0)             | Y (ref = 0)             | N                |
| -365                                        | -1                                        | N of IP visits (0, 1, 2+) [IP_CAT]              | --                                       | --                                     | --                       | Y                          | Y (ref = 0)             | Y (ref = 0)             | N                |
| --                                          | --                                        | --                                              | -365                                     | -1                                     | IS, ED, AV, IP, OA       | Y                          | N                       | N                       | N                |

Note: Only the base cohorts (cana\_1, sita\_1, sgl\_3, cana\_5, sita\_5, cana\_6, sita\_6) will output this information to avoid redundancy.

## Appendix K.2. Specifications Defining Risk Scores, Utilization, and Stockpiling for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

### Stockpiling

| Stockpiling Group                                                  | Same Day Dispensing Processing for Days Supplied                                                                         | Same Day Dispensing Processing for Amount Supplied                                     | Range of Allowable Days Supplied Values                      | Range of Allowable Amount Supplied Values                    | Overlap Percentage                                                                                                                            |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Stockpiling by Canagliflozin, Sitagliptin, SGLT-2i exposure groups | Default: adds all (days supplied or amount supplied) values for dispensings in the same GROUP/STOCKGROUP on the same day | Default: Adds all amount values for dispensings in the same stockgroup on the same day | Default: Does not consider days supplied values of 0 or less | Default: Does not consider days supplied values of 0 or less | Default: No truncation will occur and any overlap of supply between dispensing will be corrected by pushing overlapping days supplied forward |



**Abbreviations:** CCI: combined comorbidity index; aDCSI: Adapted Diabetes Complication Severity Index; IPTW: inverse probability of treatment weighting; IPCW: inverse probability of censoring weighting; ED: emergency department encounters; AV: ambulatory visits; IP: inpatient hospital stays; IS: institutional stays; OA: other ambulatory encounters; SGLT2i: sodium-glucose cotransporter-2 inhibitor

### Appendix K.3. Specifications Defining Renal Cell Carcinoma (RCC) Narrow Definition for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115

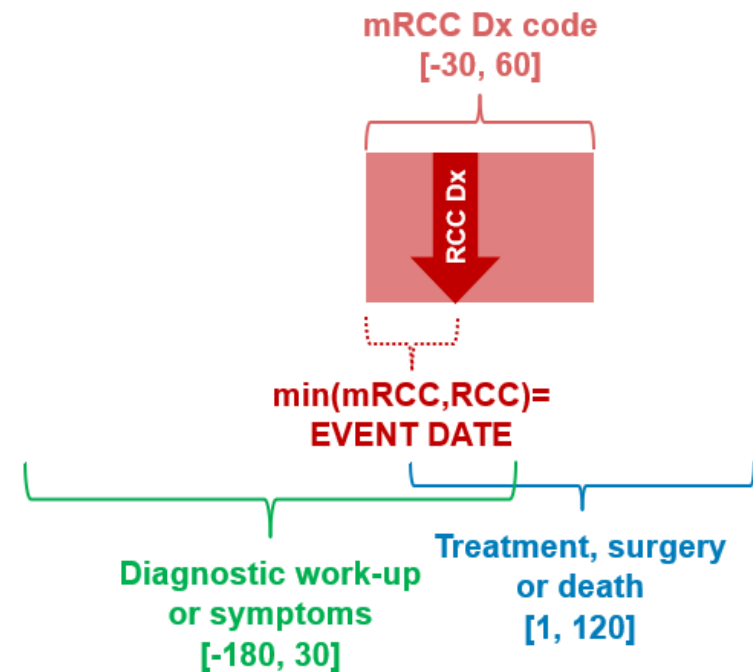
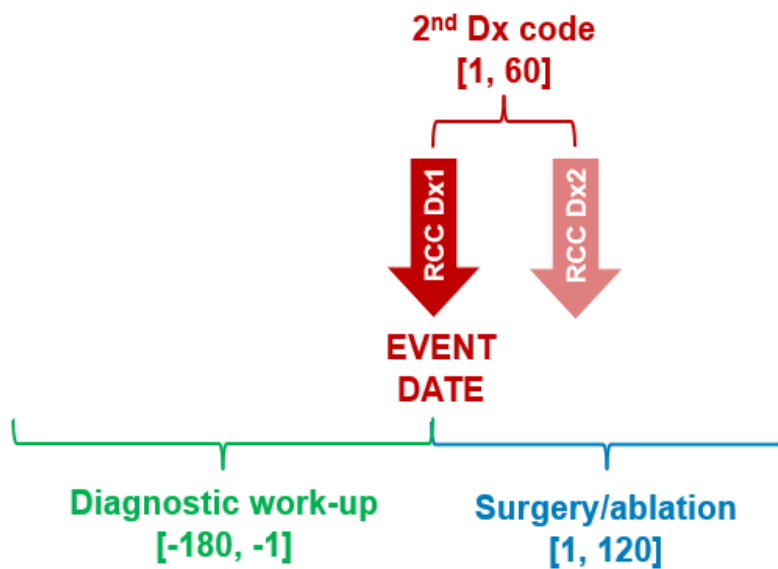
#### Early RCC:

2 non-metastatic RCC Dx codes within 60 days (event date is earliest Dx code)  
 + surgery/ablation within [1, 120] days of event date  
 + diagnostic workup in [-180, -1] days of event date

OR

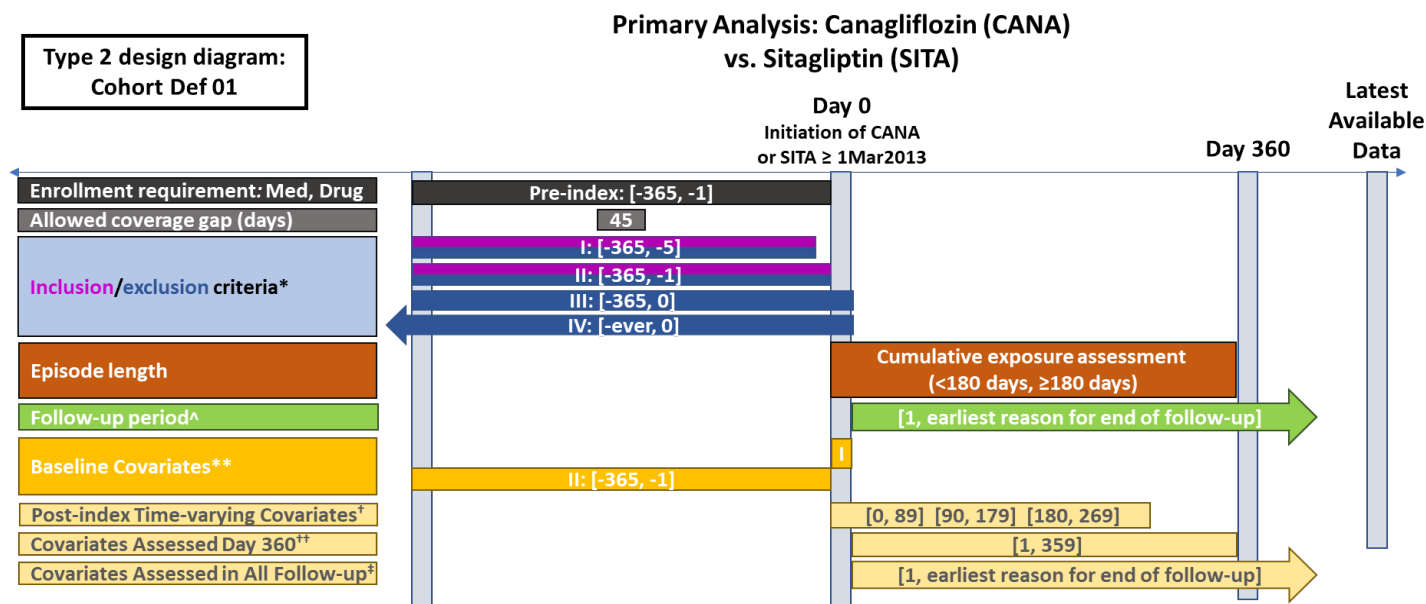
#### Late RCC:

1 broad RCC Dx code (event date is earliest of broad RCC or mRCC code)  
 + 1 metastatic RCC (mRCC) dx code [-30, 60] days from RCC Dx  
 + workup or symptoms [-180, 30] days from event date  
 + Tx, Surgery or Death [1, 120] days from event date



**Abbreviations:** RCC: renal cell carcinoma; Dx: diagnosis; Tx: treatment

## Appendix L. Design Diagram for cder\_mpl2p\_wp061 and cder\_mpl1p\_wp115



ACEi = angiotensin-converting enzyme inhibitors; aDSCI = adapted Diabetes Complications Severity Index; ARB = angiotensin receptor blocker; AV = ambulatory care; CCB = calcium channel blocker; CCI = Combined Comorbidity Score; CKD = chronic kidney disease; COPD = chronic obstructive pulmonary disease; DPP-4i = dipeptidyl peptidase-4 inhibitors; ED = emergency department; GIP = glucose-dependent insulintropic polypeptide; GLP-1RA = glucagon-like peptide-1 receptor agonist; IP = inpatient; IPP = inpatient setting, principal discharge diagnosis; PVD = peripheral vascular disease; N = number; NMSC = non-melanoma skin cancer; NSAIDs = non-steroidal anti-inflammatory drugs; RCC = renal cell carcinoma; SGLT-2i = sodium-glucose cotransporter-2 inhibitors; T1DM = type 1 diabetes mellitus; T2DM = type 2 diabetes mellitus.

\* **Inclusion/Exclusion Criteria:** Window I (per Hampp et al. 2020): *Inclusion:* 1+ T2DM diagnosis code. *Exclusion:* Any T1DM diagnosis codes.

Window II: *Inclusion:* 1+ oral antidiabetic drug. *Exclusions:* Prior use of index drug (CANA or SITA), CKD Stages III-V or dialysis.

Window III: *Exclusion:* other [non-index] SGLT-2i and/or DPP-4i drugs; GLP-1RAs; and GIP/GLP-1RAs.

Window IV: *Exclusion:* Prior RCC (≥2 diagnosis codes or ≥1 code for RCC history/kidney removal).

<sup>^</sup> **The follow up period** ends at the earliest occurrence of RCC; comparator drug class initiation (including combination products); disenrollment; Data Partner end date; query end date; CKD stages III-V; dialysis; or death. Non-RCC malignancies (excluding NMSC) and [GIP]/GLP-1RA or insulin initiation are included as end-of-follow-up criteria in separate sensitivity analyses.

**\*\* Baseline Covariates:** Window I: Age, sex, race, ethnicity, calendar year of drug initiation.

Window II: Retinopathy, nephropathy, neuropathy, hypertension, dyslipidemia, coronary artery disease, cerebrovascular disease, PVD, congestive heart failure, COPD, depression, obesity, malignancy excluding NMSC, Hepatitis C, kidney stones, sickle cell disease, metformin, sulfonylureas, thiazolidinedione, long-acting insulin, short-acting insulin, combination insulin, non-specific insulin, α-glucosidase inhibitor, meglitinide, N of oral antidiabetic drug classes (continuous), CV medications (ACEis, ARBs, beta-blockers, CCBs, statins, loop diuretics, other diuretics, aspirin/acetaminophen/other NSAIDs), IPP/ED hypoglycemia diagnoses, IPP/ED hyperglycemia diagnoses or hyperglycemia labs, N of AV visits, N of ED visits, N of IP visits, influenza or (ever) pneumococcal vaccine, smoking, alcohol use, risk scores (aDSCI, CCI, frailty).

<sup>†</sup> **Time-varying post-index covariates:**

**Last-measured value:** Retinopathy, nephropathy, neuropathy, frailty indicators assessed in three periods (baseline through Day 89, Day 179, or Day 269) or pneumococcal vaccine in all available follow-up time through Days 89, 179 and 269.

**In each interval:** GLP-1RA initiation, insulin initiation, IPP/ED hypoglycemia, IPP/ED hyperglycemia or hyperglycemia labs, HbA1c tests, ED visits, number of AV visits (categorical), IP visits, CV medications, increase in N of CV drug classes (binary).

**Past 365 days:** Influenza vaccine and preventive healthcare in 365 days preceding Days 89, 179, and 269.

<sup>††</sup> **Day 360 Covariates:** Retinopathy, nephropathy, neuropathy, hypertension, dyslipidemia, coronary artery disease, cerebrovascular disease, PVD, congestive heart failure, obesity, any HbA1c test, GLP-1RA initiation, insulin initiation, frailty indicators, IPP/ED hypoglycemia visits (categorical), IPP/ED hyperglycemia visits (categorical), preventive healthcare indicators, number of AV visits (categorical), number of IP visits (categorical), number of ED visits (categorical).

<sup>‡</sup> **All available follow-up:** GLP-1RA initiation, insulin initiation.